




3 1761 11649657 1



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/31761116496571>

CA2 φN Z1

- 75E21

(6)



Government
Publications

THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: December 16, 1975. **TIME:** 8. p.m.

LOCATION: Kingston, Ontario.

VOLUME NO: 15.A

OFFICIAL REPORTERS

Angus, Stonehouse & Co. Ltd.
14 Carlton Street 7th Floor
Toronto, Ontario M5B 1K5
595-1065



ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

CAZ0N2
-75E21

Government
Publications

ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Hearing held at the Holiday Inn,
Bellvue Room, Kingston, Ontario,
on the 16th day of December,
1975, at 8:00 p.m.



MEMBERS OF THE COMMISSION

DR. WILLIAM W. STEVENSON

CHAIRMAN

APPEARANCES:

Members of the
Commission

Robert E. Costello
Solange Plourd-Gagnon
George McCague
Arthur Porter



8 p.m.

Dec. 16/75

1.DP.1k

INTRODUCTORY REMARKS BY DR. PORTER

INTRODUCTORY REMARKS BY DR. STEVENSON

Slides shown, with commentary by The
Chairman.

THE CHAIRMAN: That brings us to our
first speaker of the evening, Mr. Leonard Bertin,
the editor of the Kingston Whig-Standard. We
certainly are not going to have anything but nice
things to say about the press coverage of these
meetings.

MR. BERTIN: I am here in a private
capacity, and not by newspaper.

May I first say that I think the
Ontario Government is to be commended for establishing
this Royal Commission. Its action seems to reflect
a very clear appreciation of the importance of
electric power for the future of this province and for
the Nation as a whole. It suggests that the
Government of the Province realizes, too, that
rapidly growing demands for energy cannot be met
without huge capital expenditures and widespread
changes in land use. There could also be far-reaching
environmental implications and it is with these that
I am concerned tonight.

A preliminary submission that has been



1.2 1 made to your Royal Commission by the Hydroelectric
2 Commission of Ontario indicates that more than a dozen
3 potential sites for future power generating
4 stations are being looked at in the general area
5 between Kingston and Cornwall. It was, I
6 understand, suggested to your Commission last night,
7 and that is the reason for my being here, that it might
8 make more sense to build generation stations on the
9 agriculturally unproductive pre-Cambrian rocks east
10 of Kingston, rather than on the comparatively good
11 agricultural land of the Bruce Peninsula.

12 There are two obvious implications of
13 any decision along these lines and it is my
14 submission that all should be carefully evaluated
15 before any final decisions are taken:

16 The first is that there is no way
17 that domestic, industrial and commercial activities
18 that are presently foreseen for the area between here
19 and Cornwall or thereabouts could possibly absorb
20 even a tiny fraction of the additional electricity
21 that would be produced by a group of such stations.
22 The power so generated would have to be transmitted
23 elsewhere and, possibly, to the United States, using a
24 veritable spider's web of overhead transmission lines.

25 The second is the matter of what we



1.3 1 will do with the waste heat that is an inevitable
2 byproduct of any such program. The Commissioners
3 are aware, but the general public may not be,
4 that the most efficient thermal generating stations
5 are only operating at efficiencies of around 30 per
6 cent. Nuclear power stations rarely surpass 25 per
7 cent efficiency. For every one unit of electricity
8 that is fed into the distribution grid, between two
9 and three units will be lost to the atmosphere
10 through the stacks, or in water that is used to
11 condense steam for re-use in the boilers and turbines.

12 Estimates for the United States are
13 that, if all the generating capacity is built that
14 federal agencies judge to be necessary to meet the
15 needs of the next two decades, waste heat from these
16 will increase the temperature of all the rivers
17 reaching the Pacific and Atlantic seaboard by an
18 average of up to eight degrees Celsius.

19 This heat can variously be regarded
20 as thermal enrichment, if it is used in our case to
21 keep the Seaway open throughout the winter, or as
22 thermal pollution, if we think of all the addition
23 algal growth that it could produce.

24 Such thermal additions could encourage
25 also, so I understand, the growth of such coarse fish



1.4 1 as carp, both in numbers and size, but might also
2 depress the health and abundance of specialty fish
3 such as salmon and trout.

4 For these reasons, it is respectfully
5 submitted that adequate research be immediately
6 commissioned to investigate and evaluate all relevant
7 factors. If our worst fears are confirmed, then the
8 Hydroelectric Commission of Ontario should be urged to
9 consider alternative methods of cooling, such as the
10 use of cooling towers already for years employed both
11 in Britain and some parts of the United States.

12 The ultimate answer, hopefully, as
13 operating temperatures of nuclear reactors are
14 increased, will be found, first in the development of
15 gas turbines that need no such cooling, and then in
16 direct conversion of thermal energy and nuclear
17 radiation into electricity.

18 Thank you, Madame and gentlemen.

19 THE CHAIRMAN: Thank you very much,
20 Mr. Bertin. Perhaps Dr. Porter will have some
21 questions for you.

22 DR. PORTER: The deficiencies, Leonard,
23 just on a small point are not quite right. I think
24 for thermal stations, fossil fired, it is in the order
25 of about 36 per cent to 38 per cent and nuclear,



1.5 1 we would say a CANDU reactor, I think about 29 per cent,
2 in that area, but of course this is nitpicking in a
3 real sense.

4 These potential sites set out in the
5 preliminary submission which Ontario Hydro provided
6 the Commission with of course are, as the name
7 implies, potential sites. We are pretty sure that
8 before any development of these sites took place
9 that there would be a very in-depth examination of
10 the environmental implications. Indeed, as you
11 probably know, a recent Environmental Impact Assessment
12 Act passed by the Government of Ontario and likely to
13 go into force within the next few months, it is at
14 present a question of implementation and how the
15 process of assessment is to be carried out and I think
16 that's the problem at stake, but each of these would
17 be given the most in-depth scrutiny by the public and
18 presumably by panels of experts. The suggestion of
19 course that these may be replaced, I'm thinking of the
20 thermal pollution implications now, by cooling towers
21 rather than watts through cooling is one that has been
22 put to the Commission on various occasions during
23 these preliminary meetings.

24 One major problem is economic, in
25 point of fact. Another is possible climatological



1.6

1 implications, the effect on climate, where you are
2 dissipating a vast amount of energy like, say, 10,000
3 megawatts thermal is a very large local amount of
4 power and probably would cause various local and
5 maybe even regional effects on climate. These are
6 problems that are not fully understood as you know at
7 this time.

8 However, I think your submission is a
9 very timely one and is the sort of thing of course
10 that the Commission has been seeking as we go across
11 the province, seeking out concerns of a regional type
12 of a
13 like this and/provincial and national type on the other
14 hand.

15 I don't suppose I have really answered
16 any questions but I have more or less stated the
17 situation as I see it.

18 THE CHAIRMAN: Thank you very much,
19 Mr. Bertin.

20 The second submission tonight will be
21 Bill Herrington of the Farm Union at Selby. Is Mr.
22 Herrington here tonight? Perhaps he will come later.

23 Our third submission will be from the
24 Frontenac Historical Association, Mr. Godfrey
25 Spragge.

MR. GODFREY SPRAGGE: You are evidently



1.7

1 confused with the Kingston Historical Association.
2 We are the Frontenac Historic Foundation and our
3 aims are somewhat different.

4 I have written a one-page brief which
5 I propose to read for you.

6 The purposes of the Foundation are to
7 preserve and foster for the benefit of the Province
8 of Ontario, the history, traditions and culture of the
9 area comprising the City of Kingston and the County
10 of Frontenac. To further these purposes the Foundation
11 encourages public interest in the architectural and
12 general history of the County.

13 In a milieu of development and change,
14 the visible evidence of our history, traditions and
15 culture sometimes receive scant attention. In other
16 cases pains are taken to preserve the evidence of the
17 past. Upper Canada Village is outstanding testimony
18 to the efforts of Ontario Hydro, and its agents, to
19 preserve part of the history of this province. The
20 placement of a generating station on a Heritage Highway
21 is an example of conflict of new with old.

22 In many municipalities, in new
23 subdivisions, hydro electric substations are masked by
24 a structure resembling a typical building in the
25 subdivision. The old historic areas of our cities,
and our heritage highways, deserve no less consideration.



1.8 1 Most groups concerned with the
2 conservation of our historic past would be pleased to
3 outline areas within their region in which special
4 consideration should be given to history and tradition.
5 Groups concerned with conservation of areas of
6 special ecological interest might be asked for similar
7 information as might groups concerned with
8 environmental and aesthetic impact. Indeed, by
9 approaching groups that have responded to this Royal
10 Commission, and by seeking out like-minded groups in
11 the future, areas which have special significance
12 could be mapped and categorized. Conversely, such
13 groups might indicate those areas which have no
14 special significance from their point of view. Such
15 a survey of groups with special concerns might be
16 updated periodically. In this way input into the
17 planning process could be achieved without revealing
18 plans for the acquisition of rights-of-way and
19 building sites.

20 Where development of new facilities,
21 or enlargement of existing facilities is proposed
22 which requires the demolition of buildings, it should
23 be normal policy to consult with organizations such as
24 Ontario Heritage Foundation and the Frontenac Historic
25 Foundation. Buildings of historic significance might
be offered for sale to such foundations at nominal



1.9 1 cost in ample time to permit their removal and
2 relocation.

3 The plea of groups such as the
4 Frontenac Historic Foundation is for ample consultation
5 and communication. The need for development is
6 recognized. But development can and should avoid
7 unnecessary damage to the natural and man-made
8 environments.

9 Thank you, Madam and gentlemen.

10 DR. STEVENSON: Thank you very much,
11 Mr. Spragge.

12 You know, it strikes a Torontonionian
13 like myself as nothing short of amazing to walk down
14 a Kingston street and to look at the mansions on
15 the street which I imagine are averaging 150 years old
16 and realizing that in Toronto/^{that}the old stone houses
17 which here are boarding houses in some cases, but no
18 evident attempt at maintaining them as historical
19 sites, they would probably be moved to parks in Toronto
20 and plaques and special attention given to them because
21 there are relatively few of that vintage. You really
22 have a historical heritage in this city that is just
23 amazing to me to observe in the last couple of days.

24 DR. PORTER: Just to confirm what you
25 have said, Bill, the city hall is just a sheer delight.



1.10 1 MR. COSTELLO: I really haven't much
2 to say but this is true wherever we go, we turn up
3 something new and this is one of them, so we are
4 glad to receive it.

5 DR. ROSEHART: There's a comment in
6 here, the placement of a generating station on a
7 heritage highway. Which station are you talking about
8 here?

9 MR. SPRAGGE: I am thinking of the one
10 near Bath.

11 MR. McCAGUE: Does your membership
12 go beyond Kingston? Do you have membership within
13 the county?

14 MR. SPRAGGE: Oh yes, very much so.

15 MR. McCAGUE: What is your membership?

16 MR. SPRAGGE: Around 200 I believe.

17 THE CHAIRMAN: There is no suggestion
18 in your submission, Mr. Spragge, that Hydro has not
19 cooperated with your association in the past.

20 MR. SPRAGGE: No, we are not suggesting
21 that. It is not meant as criticism. We are asking for
22 the sort of communication, and communication at the
23 planning stage. My fourth point was intended to
24 suggest a means whereby this could take place.
25 Obviously you are not going to consult groups such as



1.11 1 ours immediately before purchasing a site. This is
2 somewhat a problem for Hydro. On the other hand,
3 if you wait until after the site is purchased, if
4 Hydro then consults, they do not want to sell the
5 site and go elsewhere so I am trying to find a means
6 whereby prior consultation can take place without
7 causing financial problems for Ontario Hydro.

8 DR. STEVENSON: Since we know one
9 thing, and that is if the Lennox to Ottawa 500 volt
10 transmission line ever does materialize it will go
11 right through the middle of Frontenac County. I
12 hope and trust Ontario Hydro will take heed to your
13 submission.

14 MR. SPRAGGE: We hope so.

15 THE CHAIRMAN: Thank you very much.

16 Mr. Scott Foster. The Commission
17 would like to thank Mr. Foster for agreeing to
18 present his submission tonight instead of this
19 afternoon when he was scheduled because we simply ran
20 out of time.

21 Is this an individual submission,
22 Mr. Foster?

23 MR. FOSTER: Yes, I am an independent
24 inventor and I somewhat hope to represent with my
25 viewpoint a viewpoint that has been long neglected.



1.12

1 THE CHAIRMAN: It is a substantial
2 brief. I trust you will find some way to highlight
3 it for us, will you?

4 MR. FOSTER: I'm just going to read
5 the first portion.

6 My aim in addressing this Royal
7 Commission on Electric Power Planning is to draw
8 your attention to an alternative mode to the present
9 polyphase system of alternating currents for the
10 long-distance transmission of electrical power which
11 would be a 'wireless' system. It is my firm belief
12 that a 'wireless' system of electrical transmission
13 deserves your careful examination and due
14 consideration as a viable alternative in the long-
15 range planning of electrical power development in
16 Ontario and possibly as early as the period between
17 1983 and 1993.

18 When I speak of a 'wireless' system,
19 I do not mean one of the more prevalent notions today
20 of laser or microwave beams of electromagnetic
21 energy; for the 'wireless' system involves the
22 direct transmission of electrical currents through
23 the atmosphere as though it were a conductor and not
24 an insulator. Such a 'wireless' system was demonstrated
25 in 1899 by Nikola Tesla, the inventor of the polyphase



1.13 1 system of alternating currents, wherein 10 kilowatts
2 of electrical power was transmitted over a distance
3 of 40 kilometers without any intervening wires. And
4 from 1900 to 1905, Tesla began the construction of
5 what was to be the first transmitting station of a
6 'wireless' system; but owing to a lack of capital,
7 not technical difficulties, the project came to an end
8 and never attempted again since.

9 Tesla's 'wireless' system was to have
10 provided both communications and power transmission
11 on a worldwide scale with the use of 'stationary
12 waves'; but even during the construction of the
13 transmitting station near Shoreham, Long Island,
14 Tesla envisioned modifications to his system such as
15 an 'energy-beam' system which was later widely
16 discussed as his famed 'death ray' in 1933.

17 After having spent several years
18 examining and studying Tesla's patents and works,
19 I have personally benefited in having grasped the
20 fundamental principles of his 'wireless' systems and
21 in having been able to apply for patents for an
22 'energy-beam' system, similar to the one suggested
23 by Tesla. The implications of such systems are far-
24 reaching and have an enormous opportunity for
25 exploitation with our modern technology.



1.14

1 In reviewing the issues and concerns
2 of this Royal Commission, the greatest implication:
3 of a 'wireless' system lies in its ability to
4 transmit large power loads, (10,000 megawatts may
5 be readily managed by each station), without the use
6 of transmission lines or corridors and with only a
7 negligible loss of energy; and with the growth of power
8 loads, it would only be necessary to construct
9 additional stations as required at the generating
10 sites and at the receiving utility sites. Though I
11 would forewarn you that a 'wireless' transmitting
12 station would include a tower anywhere from 50 to
13 200 meters in height topped with a dome of 25 to 50
14 meters in diameter which would predominate the local
15 landscape, I believe they would be more pleasant to the
16 eye than ever-increasing numbers of transmission
17 towers and lines of the present system. However, I
18 would point out that the receiving utility stations
19 would not require a large receiving tower unless
20 operating on an 'energy-beam' system of
21 transmission. Considering that we are now faced with
22 the dilemma of doubling power loads each ten years and
23 present lines are reaching their capacities, the
24 prospect of widening and increasing the number of
25 transmission corridors at the same rate will soon



1.151 become intolerable; thus, a 'wireless' system would be
2 a desirable alternative.

3 With respect to land use under our
4 present system of transmission, we can expect further
5 expansion of transmission corridors through sparsely
6 populated regions. This will likely involve the
7 placement of corridors through acreage now used in
8 farming, recreational areas, and unprotected woodlands.
9 Though the available acreage to farming is not
10 significantly reduced, I seriously doubt that any
11 farmer cares to have a transmission corridor imposed
12 over his fields; nor do I think that any interested
13 parties would care to have 180 meter wide corridors
14 cut through their recreational areas or through the
15 woodlands not yet disturbed. The amount of land used
16 in the transmission of 'wireless' power is limited
17 to the sites of the generating stations and receiving
18 utility stations or their vicinity; and, this land
19 could serve a dual purpose at the generating stations.
20 Unconstrained by the need for transmission lines, it
21 is possible with a 'wireless' system to locate
22 generation stations in remote areas and off-shore,
23 while receiving stations could be constructed as
24 required by remotely located communities and
25 industries without large expenditures in constructing



1.16 1 local generating plants or transmission corridors.
2
3 The environmental effects of a
4 'wireless' system can be quite negligible and far
5 less disturbing than our present system. With the
6 use of a 'stationary wave' system, I doubt if any
7 effect on the environment could be perceived as
8 virtually all the electrical power transmitted would
9 pass through the atmosphere undisturbed, and we are
10 already being exposed to 'stationary waves' created
11 by natural lightning. The key concern as to
12 environmental effects would be realized with the use
13 of an 'energy-beam' system of transmission wherein
14 all the electrical power is concentrated in a ray
15 more powerful than the largest lasers can produce;
16 yet, because an 'energy-beam' system deals with
17 tunable electrical energy, it can be readily adjusted
18 to a very high frequency, in this regard I recommend
19 300,000 cycles as a desirable standard, so that it
20 would not have any deliterious impact on birds, kites,
21 and aircraft crossing the beam's path. Even now,
22 I am preparing a patent application for a modification
23 of my own 'energy-beam' system which would restrict
24 such hazards to the immediate area of the transmitting
25 and receiving sites.

Though further limited by generation



1.17 1 needs, the present transmission system imposes
2 several limitations on the availability of electrical
3 power to communities and industries. We are
4 approaching a point where serious considerations
5 must be given to the conservation of our electrical
6 supplies. As present demands increase, it must be
7 determined whether present generating facilities
8 are to be expanded into ever large plants or if
9 numerous plants of a smaller size should be
10 constructed; and in the latter case, the construction
11 of more generating plants would require further
12 transmission facilities under the present system
13 spreading even more transmission corridors and lines
14 across the province. It will soon become necessary
15 to construct generating plants of at least 3,000
16 megawatts capacity to recover the cost of their
17 construction and to cover the maintenance costs and
18 operation of the facility. While we can expect to
19 use both fossil fuel and nuclear generating plants,
20 an increase in the generating capacity of each new
21 plant should be assessed as providing at least 3,000
22 megawatts capacity and preferably more than 6,000
23 megawatts capacity, or provide for a future expansion
24 to more than 6,000 megawatts. With this in mind,
25 I would also personally advocate an expanded research



1.18 1 effort in the development of generating electrical
2 power from a fusion reaction in addition to an
3 intensive growth program for CANDU generating plants.
4 With the harnessing of the fusion reaction, we can
5 expect a plentiful supply of economical fuel and
6 electrical power for all our needs for many years to
7 come; but at the present rate of research, it is
8 doubtful that a fusion reactor will come into being
9 until the late 1990's when our fossil fuel reserves
10 will be near exhaustion.

11 If and when we develop a fusion
12 reactor, there will be an increased demand upon the
13 transmission facilities to distribute more power over
14 a larger area; and to recover the investment of
15 construction and operating costs, it may very
16 likely require a large region of distribution to make
17 fusion power economically feasible. In 1896, when
18 electricity was generated and utilized with a direct
19 current system, it was impossible to transmit
20 electrical power for more than a half mile; thus, it
21 would have been economically impossible to construct
22 and operate the large generating plants we use today
23 in such a confined region of distribution. However,
24 the first transmission of electrical power with the
25 polyphase system of alternating currents over twenty-
two miles from Niagara Falls to Buffalo in that year



1.19 1 demonstrated not only the superiority of alternating
2 currents over direct currents in transmission but also
3 ushered in the age of the large generating plants
4 supplying economical power and one of which supplies
5 more power than all direct current plants in 1896.
6 It may be most advantageous to adopt a 'wireless'
7 system previous to the completion of the first
8 generating fusion reactor in order to make certain
9 such an undertaking will be economically feasible;
10 and coupled together, the generation of power by
11 fusion and its transmission with a 'wireless' system
12 would make it possible to transmit vast power loads
13 to any point on earth at a very economical rate.

14 As the implications of 'wireless'
15 systems for transmitting electrical power are numerous
16 and since the time allotted to me before this Royal
17 Commission is limited, I have added for your review
18 several appendices to assist you in the subject of
19 'wireless' systems for transmitting electrical power.
20 And as time may allow, I would be pleased to hear any
21 comments or questions you would care to put forth
22 regarding either Nikola Tesla's or my own 'wireless'
23 systems, though I shall restrict comment on my own
24 in order to protect my pending patents for this invention.

25 Thank you for your kind attention.



1.20 1

THE CHAIRMAN: Thank you very much,
2 Mr. Foster. This is an interesting submission to the
3 Commission which has once before been exposed to
4 a proponent of Nikola Tesla's wireless transmission
5 system and since I can remember now still the lively
6 debate you had with that man, Dr. Porter, how can we
7 proceed from that discussion with Mr. Foster to
8 explore that alternative.

9 DR. PORTER: I must confess, Mr.
10 Foster, I don't understand it. Professor Tesla of
11 course was in his day an eminent electrical engineer,
12 in fact he was professor of engineering at Yale,
13 I believe.

14 I would like you, though, just to
15 clarify my own thinking on this I gather the sorts
16 of voltages that you had in mind would be in the
17 order of hundreds of millions of volts. Is that not
18 right?

19 MR. FOSTER: Right. The initial
20 station he was constructing in Long Island was to
21 operate at a capacity in the neighbourhood of
22 ten million volts potential.

23 Actually most of the writings on
24 Tesla were made shortly after his death in 1946 when
25 most electrical engineers were still experimenting



1.21 1 with five million volt potentials as the highest to
2 be reached.

3 DR. PORTER: When you talk about
4 wireless transmission as far as I know there are only
5 three possible methods known to science today of,
6 say, transmission between two points. One is by
7 direct conduction of electricity through the atmosphere.
8 (I must apologize, ladies and gentlemen, for the
9 party that is going on next door. I assure you that
10 we didn't plan on this and if you will bear with us
11 we will carry on).

12 Anyhow, as I was saying, the conduction
13 of electricity through a gas which will get a stream
14 of electrons moving in one direction or positive
15 ions in the other.

16 The second way of transmitting energy
17 between two points is through electro-magnetic
18 radiation, that is through radio, that is, radio is
19 transmitting energy really or television signals or
20 light itself, energy is being transmitted from the
21 sun to the earth by radiation.

22 The third way is just the way sound
23 is transmitted through from me to your ear which is
24 obviously a wireless, there are no wires involved.

25 Now, which of those three categories



1.22 1 would you put this invention of Tesla's and the
2 extension of it that you propose.

3 MR. FOSTER: Basically the atmosphere
4 acts as an excellent insulator. This is used by
5 Ontario Hydro with the use of towers and transmission
6 lines. There is no need for an insulator around the
7 cable itself.

8 In Tesla's stationary wave system
9 his idea was to reduce electrical wave force which
10 would oscilate at a very high rate. This was termed
11 (inaudible) potential and it was to generate what
12 would amount to the same as sonic rays, not resonate
13 with any other items within the world's atmosphere
14 so that virtually you could transmit from one end of
15 the room to the other without loss.

16 He also worked earlier on that and I
17 have included a patent for that system, a system
18 where an electro mode of force would be conducted
19 into the upper atmosphere where the atmosphere is
20 rarified to the point where it will work as a conductor
21 with high voltage current. A system of energy was
22 the idea of producing a channel of iodized gas between
23 two towers and this in turn would produce conducting
24 channel in place of wire but it would simply be a
25 gaseous or plasmic media. This is basically what my



1.23 1 patent is based on.

2 DR. PORTER: I believe that obviously
3 the present is not the time to conduct a technical
4 dialogue of this kind. We are grateful to you for
5 coming forward, but I suggest, Bob, that you might
6 like to discuss this proposal further with some of the
7 scientific staff of the Commission.

8 I would add that some of these ideas
9 may sound wild but one has got to recall at times,
10 for instance, the Sterling Engine was introduced about
11 150 years ago. Within the last 25 years it has been
12 taken up by the Phillips Company at Indhovan.
13 Within ten years the Ford Motor Company are going to
14 produce a half a million cars using the Sterling
15 Phillips engine predicated on the Sterling concept
16 with an efficiency at least 60 per cent higher than
17 the modern internal combustion engine, so we are not
18 sort of in any way suggesting that this is non-viable
19 at this time because we don't understand enough about
20 it.

21 MR. FOSTER: As I say, it is a pending
22 patent so I would not expect any public knowledge of
23 it. The Tesla system is over 70 years old and has
24 been long neglected.

25 DR. PORTER: There is just one thing,



1.24 1 ladies and gentlemen, I would like to perhaps mention
2 at this time because I think this might interest you.
3 Mr. Foster in addition to providing us with his brief
4 provided me personally with a copy of an article by
5 Nikola Tesla entitled "The Problem of Increasing
6 Human Energy with Special Reference to the Harnessing
7 of the Sun's Energy, June, 1900".

8 So this is rather interesting.
9 Furthermore, half way down the first column it reads:

10 "Lord Calvin ...
11 (and I am sure most of you have heard of the great
12 British scientist and engineer, and this is what
13 Tesla wrote)

14 "Lord Calvin in his profound
15 meditations allows us only a short
16 span of life something like six
17 million years after which time the
18 sun's bright light will have ceased to
19 shine and its life-giving heat will
20 have ebbed away."

21 That was Calvin less than a hundred years ago. Today
22 we know that this sun of ours probably has another
23 six billion years to go, not six million, so science
24 and technology advances.

25 Thank you very much.



1.25 1 THE CHAIRMAN: Thank you, Mr. Foster.
2 By the way, did anything come of your correspondence
3 with the Department of National Defence which you
4 attach also to the brief?

5 MR. FOSTER: They are still looking
6 into the matter, but not as seriously as might be
7 hoped.

8 DR. ROSEHART: For the benefit of
9 the people here, there is a letter attached from the
10 office of the Deputy Minister of National Defence,
11 a quite recent letter, and it addresses Mr. Foster
12 I believe as Mr. X and the title is "Death Ray" -
13 something concerning another part of this I suppose.

14 THE CHAIRMAN: Same thing, Bob with
15 lower frequency.

16 DR. ROSEHART: Higher energy, I
17 presume.

18 MR. FOSTER: Any frequency - lightning
19 is an excellent example of kinetic energy discharged
20 in an electrical force.

21 DR. PORTER: Lightning is an oscillating
22 phenomenon. It starts on the ground and goes up.

23 THE CHAIRMAN: The next submission is
24 from Lois Devlin, the Consumers' Association of
25 Canada, Kingston Chapter.



1.26

MS. DEVLIN: The Consumers'

Association of Canada is concerned that society should move in the direction of a conserver society.

Members of the Kingston Association who share this view recognize long-term planning for electrical needs is one of the areas where an attitude of conservation is most important.

In a conserver society we will be forced to re-assess all our views to be sure that the adage "More is Better" has been eliminated from our thinking. This applies particularly to the Hydro forecast that demand for electric power will increase at 7% per year. Have we any right to establish generating capacity based on non-renewable resources to satisfy increasing demand at this rate? Should we not try to educate the public and industry to eliminate unnecessary and/or inefficient forms of energy use, even at higher short-term expenditures, so that the total load will increase at a considerably lower rate?

Rates charged for electricity have traditionally been based on the costs of generation, with lower rates for larger users. When those large users make demands on the system which call for increased capacity, the capital costs of expansion are assessed against all users by raising the whole rate



1.27 1 structure. If we assume that individual households
2 in Ontario have a right to the benefits of electrical
3 service equal to the rights of large businesses and
4 manufacturing plants, might not the present rate
5 structure be considered inequitable, because of the
6 much higher rates paid by users with low power
7 requirements? Should not a higher proportion of
8 capital expenditures for new generating facilities
9 be charged to the larger users?

10 Total generating capacity is based on
11 peak-power demands for only a few days a year. If
12 power users could be persuaded to shift demand from
13 peak to off-peak hours, could not the need for
14 increased capacity be alleviated to a considerable
15 extent? Education for conservation is probably not too
16 effective unless it is coupled with a financial reward
17 to those who practice it. Present rate structures
18 favour profligate use. Similarly, a shift of load
19 to off-peak hours would probably take place if there
20 were financial incentive to do so and the public were
21 made more aware of which periods are peak periods.
22 Would the cost of implementing these changes not
23 ultimately be less than the cost of building additional
24 generating capacity, particularly if all the effects
25 on the environment are taken into account?



1.28 1 THE CHAIRMAN: Thank you very much,

2 Ms. Devlin. Anyone who has listened to me answering
3 questions about rates for the last couple of days
4 will realize that I personally see considerable
5 potential in what you have just talked about in your
6 last paragraph, that is to say, the distinction
7 between peak and off-peak rates being made and giving
8 people who are prepared to make some adjustment in
9 the way they use electricity a break representing the
10 fact that for the sacrifice/they are making, they
11 will get some reward.

12 It is a concept, as I mentioned
13 before, that is simply standard utility practice
14 in Europe, but for some reason possibly having
15 something to do with the fact that electricity
16 bills have been a very small part of our household
17 budgets for years past we have never practiced it
18 in North America. That is rapidly changing as you
19 know.

20 Just the second paragraph deals with
21 the often commented on issue that large users get
22 lower rates than small users. It is, on the face of
23 it, it looks to be discrimination in favour of the
24 large users but one has to be careful and look at
25 the costs of serving the two classes of customers.



1.29 1 I am sure you recognize that our coal out here
2 which takes power probably at transmission voltages
3 from Ontario Hydro is served at far less cost thereby
4 than you and I in our homes with several stages of
5 transformation and a lot more additional distribution
6 investment involved. It is just like the wholesaler
7 of groceries who gets their vegetables from the
8 farmer cheaper than you and I buying them at Loblaws.
9 In that very simple analogy what you say doesn't ring
10 true, but you are saying more than that, I presume.

11 MS. DEVLIN: My point is that the
12 increase in capital expenditures for increased
13 generating capacity is increased generating capacity
14 for the 75 per cent of the industrial users, not the
15 residential users, so why should the residential
16 users have to pay a significant portion, even 25 per
17 cent, of these capital expenditures. Should not
18 these be applied to those for whom it is intended to
19 be because you say it will increase at 7 per cent,
20 2 per cent of which is due to population increase and
21 5 per cent due to increased usage primarily by
22 industry.

23 THE CHAIRMAN: Now you have raised a
24 point of fact, you see, that one would want to
25 investigate before accepting your conclusions.



1.30

1 MS. DEVLIN: These were your own
2 figures.

3 THE CHAIRMAN: Yes, but the 5 per cent
4 per capita growth is simply generalized over the
5 entire eight million citizens of Ontario and may be
6 due simply proportionately to growth of industry,
7 commerce and residential customers. It is not
8 something that I have any understanding of but I
9 would expect because of the number of electrically
10 heated residences that are now coming on stream that
11 it may very well be that the residential component
12 is leading in gross rate terms the industrial and
13 commercial. I would suspect that would be the case,
14 contrary to what you say, but I don't have the
15 figures either way.

16 MS. DEVLIN: But if the residential
17 proportion is only 25 per cent then a lot of this
18 increased generating capacity is being put in for the
19 benefit of business and industry, 75 per cent of it,
20 so why should they not pay for 75 per cent of the
21 capital costs?

22 THE CHAIRMAN: I would assume that they
23 would do so.

24 MS. DEVLIN: But I think with the
25 present kind of rate structure that the residential



1.31 1 customer will be perhaps expected to pay more than
2 because any expansion or any significant amount of
3 expansion to service that 25 per cent, what there is
4 now will easily cover that if there isn't the
5 increase in industry.

6 MR. COSTELLO: As I understand it,
7 the direct customers of Hydro such as the pulp and
8 paper companies, the firm I was formerly with, their
9 rates would go up, is it 22 per cent, Bill?

10 THE CHAIRMAN: Very close to that,
11 yes.

12 MR. COSTELLO: My home rate and yours
13 will probably go up somewhere in the area of 15 per
14 cent, so they actually are getting the bigger increase.

15 Bill did not quite clear this up.
16 These bigger customers do their own transforming.
17 We used to take in power at 110,000 and transform it
18 ourselves whereas for a home owner all the facilities
19 have to be provided to him. His power comes at 110
20 volts. There is more equipment involved in servicing
21 the home owner.

22 MS. DEVLIN: I recognize that there
23 is more equipment involved in that though I think
24 that the figure that was in the paper relative to
25 the increase in rates in Kingston is that the rates



1.32 1 to the PUC would be put up by Hydro at 25 per cent.

2 THE CHAIRMAN: 22 per cent.

3 MR. COSTELLO: PUC's fixed rates don't
4 increase at that rate so your own bill won't go up
5 22 per cent.

6 MS. DEVLIN: No, this is what was in
7 the paper, that the rate to the PUC would go up by
8 22 per cent but they would be able to get by merely
9 increasing our rates by 17 per cent.

10 THE CHAIRMAN: If you could demonstrate,
11 and Ontario Hydro, let's give them credit, produce a
12 very complete set of public statistics in a booklet
13 called "Statistical Year Book" each year and if you
14 could trace through the relative responsibilities
15 for the growth of Ontario Hydro system on the
16 residential side and then on the business and
17 industry side, you might have an interesting basis
18 for a thesis of the kind you are making here; but it
19 is not one you can argue excathedric, to use that
20 term. You need to have the statistics in front of
21 you.

22 The Commission staff would be glad to
23 assist the Kingston Consumers' Association if you
24 would like our assistance. Simply write us or give
25 us a call and we will do what we can.



1.33

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Thank you very much.

Is Mr. Lepkus in the audience?

MR. LEPKUS: I have a written submission but it is too long to present, it would take about an hour. The main point is that planning for expansion should be a part of overall energy policy and if it is considered in that view quite different conclusions might be reached than from an independent commission as the Commission is doing now, so I wonder if the Commission would accept the written submission.

THE CHAIRMAN: Absolutely, Mr. Lepkus.

MR. LEPKUS: This is for the benefit of Queen's students.

THE CHAIRMAN: You are quite entitled to paraphrase it if you would like tonight.

MR. LEPKUS: It is quite long.

THE CHAIRMAN: It is too difficult to do, all right, would you rather table it. We will accept it. Thank you very much.

This has been published somewhere, Mr. Lepkus.

MR. LEPKUS: In the Queen's Journal, the Queen's University Newspaper.

THE CHAIRMAN: Can you give us the date?



1.34 1 MR. LEPKUS: December 2nd, 1975.

2 THE CHAIRMAN: It is entitled "The
3 Energy Outlook for Canada" and it is accompanied by
4 an impressive looking set of statistics, graphs and
5 charts. We will look at it with interest in our
6 leisure.

7 We are either at or near the end.
8 I have I think only one more name on my list unless
9 Mr. Herrington is now here. Mr. Herrington is not
10 here, nor is anyone from the Farm Union at Selby.

11 I have no more names on my list.
12 Have I neglected anyone? Is there anyone else that
13 wishes to give a submission tonight, orally or in
14 writing?

15 We will have time for questions later,
16 but, sir, do you have a submission as such?

17 MR. R. J. C. BROWN: A very brief one.

18 THE CHAIRMAN: Would you come forward.

19 SUBMISSION BY MR. R.J.C. BROWN

20 My name is R.J.C. Brown of Queen's
21 University. I had a very simple suggestion, very
22 difficult to implement I suggest because it involves
23 a change in the nation's language. The suggestion I
24 have is that we try to get Canadians to stop using
25 the word "Hydro" when they refer to electricity.



1.35 1 I think this is a gross misnomer and it leads to very
2 serious and false assumptions. The main one is that
3 the energy involved in electricity is free, and I
4 think this is no longer true. We have heard tonight
5 a suggestion, I believe these were the figures,
6 in 1950, 100 per cent of Ontario Hydro's energy was
7 hydraulic; now it is something like 35 per cent.
8 Are those figures correct?

9 THE CHAIRMAN: Generally speaking,
10 yes. Somebody with the Statistical Year Book can
11 prove me wrong, but that is about right.

12 MR. BROWN: In other words electricity
13 has become, instead of a primary source of energy
14 to some extent it used to be a primary source, very
15 close to being a primary source in any event. It is
16 now a secondary source. The energy that we distribute
17 by electric power lines has to be bought. We did not
18 have to buy it before, we simply dammed the river,
19 let it run down a hill, found a suitable waterfall
20 and it was there for the taking. Now, you must pay
21 for that energy; you must pay for it in uranium; you
22 must pay for it in coal; you must pay for it in
23 oil. It is no longer free.

24 Electricity is no longer a source of
25 energy. It is simply a means of distributing energy



1.36

1 which we buy and we always buy it with money.

2 We have replaced the damming of rivers
3 with the thermal pollution of lakes and with the
4 large scale distribution systems.

5 I think if you were to try and suggest,
6 try and change this word "Hydro" you would change the
7 attitude of people towards this use of electricity.
8 It is an extremely inefficient way of using energy.
9 It is only efficient for distributing energy for
10 certain purposes. Otherwise it is very inefficient.

11 Thank you.

12 THE CHAIRMAN: If my fellow
13 Commissioners can stand it, I will tell a little
14 story about the naming of Ontario Hydro. I was at a
15 meeting of the Task Force Hydro Steering Committee
16 on the day in which they were discussing the proposal
17 to change the name to The Power Corporation of Ontario,
18 or some such, and there seemed to be general consensus
19 among the businessmen who generally comprised that
20 Steering Committee until the president of Ontario
21 Hydro, then general manager, Douglas Gordon was asked
22 his views. He said, gentlemen, you can call it anything
23 you like but as long as you and I are alive people
24 in this province will continue to pay their hydro
25 bill. That settled it and it was called Ontario Hydro



1.37

1 formally from that point on.

2 The point you raised is a good one.
3 It is something that newcomers to this country cannot
4 understand. They look at these relationships we
5 talk about and wonder what is going on. It was not
6 until some time in the 50's I believe that Ontario
7 Hydro started charging for energy at all. Prior to
8 that they charged you on the basis of the peak demand
9 that you established, if you were an industry or a
10 municipality, and some people who have looked at
11 hydro rates say that the legacy of those years is
12 that the energy component of the two-part rate is still
13 too low, a matter of great debate each summer before
14 the Ontario Energy Board.

15 But be that as it may, I understand
16 the point you are making.

17 Any other comments?

18 DR. PORTER: Mr. Brown, on the question
19 of tradition, and of course this is what we are
20 talking about, don't you agree that perhaps some of
21 the inconsistencies in the language that have arisen
22 during the long history of our species have added
23 something to our culture in a real sense?

24 For instance, in electrical science,
25 the fact that an electron is given a negative charge



1.38

1 and therefore currents are now flowing in the wrong
2 direction as the case in point. In other words,
3 here we have a fantastic inconsistency and yet we
4 have lived with it and it would be unthinkable to
5 change it at this time to say, well, golly, currents
6 flow that way from a positive to a negative in our
7 factories, in our cars, but in point of fact of course
8 the electrons flow that way and why, because we gave
9 them a negative charge.

10 So it is just one of these things
11 and I think you have to perhaps accept, as Bill
12 Stevenson has said, this is now entered into the
13 culture of Ontario and it will probably stay that way
14 I would think, but it is a good point.

15 DR. ROSEHART: Just a minor point.
16 You said I think that Hydro was free. I think Bob
17 might clarify that but I think at some locations
18 you actually have to pay water rentals for the use
19 of the water.

20 MR. COSTELLO: Many locations in
21 Ontario you pay water rental for the right to develop
22 hydroelectric power. You also have to, if you are a
23 private company or hydro, you have to compound the
24 water to release it at a particular rate. This is
25 no where near the cost of burning fossil fuel.



1.39

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

I think your point really might be that the average citizen does not realize that a good part of the increase in hydro rate he is getting today is coming from increases in the cost of oil and coal. Coal has escalated, to the company I used to work for, by a multiple of 4 in the last four years. If you are generating power from coal and your basic energy goes up that amount it certainly has an effect and such a high percentage of the total energy generation is coming from fossil fuel or from uranium. This is something a lot of people don't understand.

MR. BROWN: Thank you very much.

THE CHAIRMAN: I finally found the figures on the hydro versus thermal capacity. Unfortunately, as is usual in hydro, they separate them into east and west system and that needs additions, but if you want the figures, I have them. I think maybe 35 is a bit low, though.

Let's break for coffee for fifteen minutes and resume at 25 to ten at the latest.

---SHORT RECESS.

---UPON RESUMING.

MR. JIM DAWSON: Mr. Chairman, my name is Jim Dawson. I am from a group called GAGE. I have really two points to make.



1.40

1 THE CHAIRMAN: GAGE?

2 MR. DAWSON: Yes, it stands for Global
3 Awareness of the Global Environment, at present a
4 student movement in Ontario.

5 I would like to first draw to the
6 attention of the Committee the concept of mathematical
7 modelling or computer modelling. I am sure the
8 Committee is well aware of this. However there are
9 few things that the Committee may not know about this
10 capability. One is that there are a lot of groups
11 working in the mathematical modelling field and
12 particularly as it pertains to your Commission.
13 There is one at York University being done on the
14 system of the Great Lakes and this includes oil and
15 gas and basically all natural resources and I think
16 the Committee might be interested in looking at this
17 type of modelling processing and what benefits it has.

18 Along with the point about computer
19 modelling is that mathematical modelling shows us that
20 some of these problems, especially energy, tend to
21 be counter-intuitive. What seemed to be solutions
22 on the surface are not actually viable solutions in
23 the long run and I think this is a very important
24 concept that we have learned from mathematical
25 modelling which the Committee should be well warned



1.41

1 that in any recommendations they make they must be
2 careful, I guess I would put it that way.

3 My second point, I guess over the last
4 year and a half we have really seen examples of the
5 fact that present economic factors, commercial
6 economics, I would say, does not take into account
7 in the long run many social, environmental and energy
8 problems, especially with costs we have with both
9 environmental things and energy costs. I have a
10 suggestion to make along that line. Of course these
11 things are always taken into account in the long run.
12 We have to pay for cleaning up our rivers, for instance,
13 in the long run, after we have polluted them. Also
14 we may have higher medical bills or higher energy costs
15 because our professional knowledge does not take into
16 account the short-term costs.

17 I guess one of the best examples that
18 came up here, I think Mr. Kaiser mentioned it, was that
19 although there is sort of general public support for
20 land use planning this in fact is not done when it
21 gets right down to the crunch. The economic
22 considerations are still taken into account and things
23 are done which are against maybe the will of the
24 greater number of people in Ontario simply because of
25 short-term cost.



1.42 1 Obviously the Commission's immediate
2 purpose is to examine these factors, of social,
3 environmental and energy cost in the province in the
4 long run. However, I think what would really be a
5 useful thing for the Committee to do and which would
6 be really a long-term solution is to develop ways to
7 quantify these factors, not just have the Commission
8 look at each problem, the transmission lines and this
9 sort of thing. These things have to be taken into
10 account but the only way they are really going to be
11 effectively looked at is if they are somehow
12 quantified so you can take them into full account in
13 an economic way.

14 I think also I would point out that
15 this is not just something the energy problem relates
16 to. This was able to be done, this type of approach
17 could be used in a wider range of industry and other
18 areas.

19 As an example of what I mean here I
20 guess the easiest thing to quantify possibly is the
21 question of energy. I like the concept of, say,
22 an energy dollar. I guess an example of this is for
23 instance today we have a conventional light bulb, a
24 fluorescent light bulb. Right now we have to take
25 in all the considerations of the lighting technique



1.43 1 but right now all we do is we take a look at the
2 light itself and the cost of producing light but we
3 may not take into account the energy involved in
4 actually building the service, so it is this type of
5 approach, you have to look at the energy and not just
6 the economics of it. It may be cheaper entirely to
7 produce something but in terms of energy it isn't.

8 I guess another example of this might
9 be the idea of recycling bottles. In some ways it
10 may be cheaper for instance to break up glass and
11 recycle bottles rather than to wash them out because
12 maybe it costs more to actually wash them. It is not
13 immediately obvious what is the best solution.
14 I guess that is my second point. It would end off
15 with one other example. I was told, I have not
16 substantiated this, this is what someone told me,
17 and I would like to study it to see if it is true or
18 not but I was told it was actually less expensive
19 in terms of energy to shave with an electric razor
20 than it is to use a safety razor because it is more
21 energy consumptive to, you know, the hole bowl of hot
22 water, than it is to use the electric razor. That
23 doesn't of course include the original cost to build the
24 razor, but that is an example.

25 THE CHAIRMAN: A counter-intuitive



1.44 1 example. I have heard that once before.

2 That is fair warning, Mr. Dawson,
3 let us be on guard, Commissioners, I guess what we
4 think are obvious answers.

5 You think that mathematical models,
6 this is your theory, are one way of inoculating
7 researchers against proposals which are counter-
8 intuitive. In other words, the quantification,
9 the precision of numbers can prevent you going down
10 wrong paths.

11 MR. DAWSON: There is another side of
12 the coin here too and of course there are very real
13 dangers in using those mathematical models because
14 there are certain factors that we simply can't
15 quantify so one has to be aware of the fact that
16 there are these other factors that you can't, but I
17 think possibly there are many more factors that can
18 be taken into account which would be useful to be
19 modelled and examined in that way.

20 THE CHAIRMAN: There are a couple of
21 well known model builders here. Dr. Rosehart and
22 Dr. Porter, what would you say to Mr. Dawson.

23 DR. PORTER: I would say I have
24 produced a model or two in my time I suppose. The
25 main difficulty in the whole modelling process,



1.45 1 certainly modelling systems in which men as well as
2 machines are involved is this question of value
3 judgments, as you say. How do you quantify aesthetic
4 values? How do you quantify perhaps certain kinds of
5 environmental situations. You might, and this is an
6 approach which several people in the faculty of
7 Queen's are quite adept at, apply these so-called
8 delphi techniques to get some consensus or rather to
9 get a group of people who, unknown to each other,
10 and are engaged in providing answers to a specific
11 set of questions who are then shown the answers that
12 other people in a group of 20 or 30 people and who may
13 be prepared to change their original views on the
14 basis of what other people think and gradually of
15 course a consensus sometimes arises.

16 That is certainly one way of handling
17 the quantitative aspects of these problems and I
18 think it is the way that this Commission may well become
19 involved in long before we finish. I think we will
20 have delphi experiments in hand in certain quite
21 sophisticated areas.

22 The other of course area where the
23 modelling, and when we talk about mathematical
24 models, most of the models now are computerized of
25 course and the big development of the past 15 or 20



1.46 1 years of course is the bringing into account of
2 probabilities, the so-called Monte Carlo methods.
3 So it isn't just a question of numbers now, but
4 probabilities. This is how they designed the Toronto
5 traffic system. When they modelled that system you
6 could not say there would be so many cars going along
7 Queen Street and so many down University Avenue.
8 All you could say was at a particular time of day
9 the probability of there being 10 cars a minute was
10 so and so, the probability of 15 cars a minute and so
11 on; and so with that sort of model, okay, but we are
12 getting too much technical. I did not intend to
13 do that. Maybe Bob Rosehart could bring us down to
14 earth.

15 DR. ROSEHART: First of all, when you
16 brought up the subject, even though I played around
17 with computers quite a bit, whenever I think of
18 mathematical modelling I always think back to the old
19 hackneyed expression that garbage in equals garbage
20 out so I think there is a powerful tool there but you
21 have to know what you are doing.

22 I think this quantifying quality of
23 life factors is a very significant point. I don't
24 know how to do it but a few years ago I thought of a
25 good name for this - or I thought it was a good name



1.47 1 anyway. People talk about the GNP, the gross national
2 product, and I came up with the name of GLI, the
3 Good Life Index. I have not rationalized the index
4 yet but I think it is something along the lines of
5 what you are talking about. More and more people
6 are beginning to be concerned not so much about
7 productivity but about their surroundings.

8
9 ---For proceedings following this point, please refer
10 to Tape at approximately 150.
11
12
13
14
15
16 -----
17
18
19
20
21
22
23
24
25

CA2 0N Z1

- 75E21

Government
Publications



THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: December 17th, 1975. TIME: 8:00 p.m.

LOCATION: Peterborough, Ontario.

VOLUME NO: 16



ANGUS. STONEHOUSE & CO. LTD.
TORONTO. ONTARIO

Government
Publications

ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Meeting held at the Holiday Inn,
Regency Room, Peterborough, Ontario,
on the 17th day of December, 1975,
at 8:00 p.m.

MEMBERS OF THE COMMISSION:

DR. ARTHUR PORTER	CHAIRMAN
ROBERT E. E. COSTELLO, ESQ.	MEMBER
MME. SOLANGE PLOURDE-GAGNON	MEMBER
GEORGE McCAGUE, ESQ.	MEMBER
DR. WILLIAM W. STEVENSON	MEMBER



1

2

DP/pb

3

take 1

---UPON COMMENCING AT 3:00 P.M.

4

Introductory remarks by the Chairman.

5

6

7

8

9

10

SUBMISSION BY MR. W. H. POWELL.

11

12

13

14

15

MR. POWELL: Mr Chairman, ladies and gentlemen. My name is Howard Powell and I am appearing before you tonight as a representative of the Peterborough Utilities Commission, which I have administered for the past twenty years under the direction of an elected commission.

16

17

18

19

The Peterborough Utilities Commission is operated as a separate business-like entity, purchasing materials, energy and supply, hiring staff and operating from the revenues collected for the services given to its customers.

20

21

22

23

24

25

Because the Peterborough Utilities Commission functions in this fashion, it must set rates that are realistic and reflect the costs of the services supplied. It has done this in the past and will do it in the future in order to maintain its customer oriented standards.



1
2 The Commission meets twice a month at
3 which time business is transacted in front of the
4 press and radio so that the public may be aware of the
5 proposed actions of the Commission and may in return,
6 make the Commission aware of public desires.

7 In the notices of this meeting, there are
8 a great number of points suggested as topics for
9 investigation in the various statements of issues and
10 concerns. Because of the time element involved in this
11 meeting, these cannot be answered effectively, therefore,
12 I am confining remarks to points which I think are
13 important.

14 The time interval under study is between
15 the years 1983 and 1993.

16 By this time, by all projections, gas
17 supplies will be low, oil prices will be high due to
18 shortages, but coal and atomic energy will be able to
19 provide an adequate supply of electricity for present
20 uses and limited expansion of these uses in the future.

21 From this, I conclude that while
22 electricity costs may go up, it will, at least, be
23 available in the future.

24 In Ontario, the atomic energy option is
25 favourable, plants may be manufactured from materials
and labour wholly within the Province and run on fuel
either uranium or thorium, mined within the Province



1
2 at relatively low man-hour costs.

3 It is my feeling that generating by
4 atomic reactor will be a practical technology which
5 includes financing.

6 This city has been the centre of nuclear
7 development in Canada with many people involved and an
8 awareness of the problems. No where has the system been
9 criticized as a source of energy when built in the
10 proper location using proper control methods.

11 At this point, I might hark back to the
12 mid 1920's when this city proposed to bring its
13 electrical supply in on poles on the public streets
14 over the head of the common man, at voltages of 44,000
15 volts. Dire predictions were issued, birds, animals
16 and people would be burned on the streets, or killed
17 by electrical shock. These predictions were issued
18 by men with great theoretical knowledge but perhaps
19 a shortness of judgement. For today, we see this
20 city criss-crossed with high tension lines, the
21 Province's bulk transporting at voltages in the
22 230,500 to 800,000 volt range with little or no
23 problem to the general public except that a narrow
24 corridor of land has restricted use.

25 I would like to point out that
electricity has not been forced on any of our citizens
but rather it has presented attractive ways to improve



1
2 the life standard of the individual and so has been
3 accepted. Such acceptance, has usually been
4 accelerated because electricity has furnished, at a
5 low cost, an efficient energy for light, power,
6 communications, sanitation and numerous other routine
7 daily functions. Even in heating, it can use basic
8 fuels at generating stations remote from habitation
9 to provide power to communities without the
10 atmospheric problems created by burning other fuels
in the immediate area.

11 There is no doubt in my mind that the
12 Commission form of operation is effective, I mean
13 the Public Utilities Commission form. During my term
14 as Manager of the Peterborough Utilities Commission,
15 I have found the Commissioners quite willing to
16 listen to the public, to consider any new proposition
17 placed before it and deal with it on the basis of its
18 usefulness to the citizens it serves. For this reason,
19 the system in Peterborough is as up to date as any on
20 this continent with customers reaping benefit of
prompt quality service at low cost.

21 It is sized to carry present loads with
22 provisions for the future and for emergency.

23 Controlled peaks and off-peak power are
24 mentioned, often, as new ideas.

25 The control of the peak has been



1
2 scrutinized and this Commission has installed equip-
3 ment and sold off-peak power for use in customer water
4 heaters since the '30's. The controlled usage took
5 the water heaters off during the peak demand period and
6 left them to run in the other portions of the day, to
7 store a supply of water to carry over the peak periods.
8 Experience has found that water heaters only needed to
9 be off two or three hours a month to achieve this
10 objective and allow a saving to be passed on to the
11 citizens. Smaller peak shaving is obtained by use of
12 water driven equipment in river installations.

13 Off peak power was proposed to our various
14 industrial customers, but in each case, it was found
15 that the cost of the stand-by equipment to carry on a
16 process during a power interruption far exceeded any
17 saving in the cost of power and the customers, therefore,
18 did not accept it.

19 Our further experience is that night
20 shifts for a power saving were not attractive. Power
21 being such a small function, the cost of operation and
22 wages being such a large one, the premiums for night
23 work far exceeded any savings. Additionally, is the
24 fact that people prefer to work the same shift as
25 their friends, usually 8:00 a.m. to 5:00 p.m.

The power supply in the City of
Peterborough operates regularly on a load factor of



1
2 over 70%. This means that using power at the peak
3 rate, it would be drawn for 70% of the time or over 16
4 hours in each day. The night hours are currently the
5 slack ones.

6 It should be pointed out that all phases
7 of service are interdependent. Industrial takes the
8 load from early morning, then relies on the residential
9 to take over after five o'clock and support the cost
10 of the power until about eleven o'clock. After this,
11 standby industrial, hot water heaters and space heaters
12 take over until morning. Space heating is being sold
13 with the idea of filling in the valley from midnight
14 to morning.

15 Efficiency of power use has been stressed
16 at all times.

17 In the lighting field, considerable
18 improvement was made with methods to illuminate.

19 For exterior service, certain modern light
20 sources produced nearly three times the output of the
21 incandescent source and such light sources, where
22 provided with color corrective filters, more closely
23 reproduce colors to the human eye. The present light
24 source for Peterborough streets was selected only
25 after test installations were made so the public and
commerce could evaluate it. Color corrected mercury
was selected. This Commission is now putting up 175



1
2 watt mercury vapour lamps replacing 300 watt incandescent
3 and achieving better light levels and energy savings
4 and providing better color rendition. Lamp life is
5 increased from six months to six years reducing
6 maintenance.

7 The high level of light maintained on the
8 city streets may seem a waste to certain artistically
9 minded individuals, but it has provided a great deal of
10 safety and reassurance to people travelling on foot.

11 Indoors, fluorescent light has taken
12 over for commercial purposes. It can more closely
13 represent natural light than incandescent and is
14 similarly efficient to mercury vapour. Residentially,
15 fluorescent has not been accepted because of its
16 effect on electronic devices, but is a great potential
17 for saving.

18 All these improvements were made to reduce
19 costs while maintaining the level of service.

20 In the matter of continuity of supply,
21 our experience in Peterborough indicate that the
22 public depend tremendously on electricity. In fact,
23 the modern home does not function properly without a
24 continuous supply. One of our least users of
25 electricity is the clock, but what better, cheaper,
more accurate way is there to tell time or wake-up,
than a clock plugged into an electrical circuit,



1
2 provided the power is on.

3 In industry, we have a wire and cable
4 works, where any interruption, even a falter in the
5 supply of energy destroys the productivity of the
6 equipment for several hours while machines are cleaned
7 and restrung. One of our large industries has a metal
8 casting shop with induction furnaces. Sources of
9 supply must be continual or the metal freezes and
10 the pots are destroyed.

11 What happens to sewage, water treatment
12 and hospitals with no power?

13 Power interruptions, generally do not
14 create too much of a problem in the home because most
15 of the appliances will stop and start as the interruption
16 takes place.

17 At night in the city, an interruption
18 will put out the street lights, which require a period
19 of ten to fifteen minutes to rekindle. Traffic signals
20 are a problem, also.

21 In regard to future and future prediction
22 of load growth, I must admit that Peterborough depends
23 on Hydro planning to be able to provide power when it
24 is needed.

25 Since I have been with the Commission,
I have seen residential customer consumption grow from
306 kilowatt hours a month in 1949 to 835 kilowatt hours



1
2 per month in 1974. This is average consumption. In
3 that same time, residential customers have grown from
4 8,744 to 13,717. The number of people per service has
5 reduced from 3.36 to 3.08 which I think reflects the
6 independence of youth setting up separate households.

7 Because of the devaluation of the dollar,
8 it is useless to relate the dollar cost of consumption.
9 Rather, a period was selected when wages and consumption
10 could be related. This was from 1960 to 1974. The
11 figures on wages were from the local Chamber of Commerce
12 and the figures on the kilowatt hours were from the
13 Hydro year book. In 1960, it took 1.53% of the
14 customers average weekly wage to pay Hydro bills, in
15 1974 it was 1.59%. This indicates electric costs are
16 only a small part of disposable income. Similarly,
17 costs in industry are small related to total.

18 It would appear then, that if any great
19 measures are to be taken to economize, not a great
20 deal of monetary savings can be achieved by reducing
21 expenditures on electricity.

22 Estimating the future use, we can only
23 look for guidance to the past.

24 From 1949 to 1974, the average consumption
25 for domestic customers increased 4½% per year.

During the period, new appliances have
been introduced, the no-frost refrigerator, large water



1
2 heaters of the cascade style, the deep freeze units.
3 The automatic washer and dryer, television and the
4 instant-on television set, house heating and air-
5 conditioning etc. to name a few, nor have these
6 appliances reached saturation.

7 It would seem, therefore, that the load
8 will grow in a density at a figure of 4½% coupled to
9 the population increase.

10 Peterborough's population increase in
11 the last seven to eight years has been minimal, even
12 less than the birth rate.

13 Large increases in population could
14 only be achieved through immigration and this, therefore,
15 would be the only thing to predicate any change from
16 the 4½% growth rate.

17 Large industry could perhaps locate in
18 Peterborough and have a tremendous impact on the power
19 load. However, there is relatively full employment and
20 high wage rates in the city and such being the case,
21 there is little attraction for new industry other
22 than within the same corporate structures as now exists.

23 One thing that might effect the population
24 and load growth detrimentally is the exiting of the
25 city dwellers to the country. Due to the conveniences
electricity can supply in the rural setting, many of
our citizens are moving out to this area to get away



1
2 from the limitations of city life.

3 In the matter of routing of transmission
4 lines, or siting of property, I think the considerations
5 should be basically for proper function of the services
6 involved, for it is a key service. In nature, animal
7 and vegetable are constructed in a way to best serve
8 their function. So in the transmission or generation
9 of energy, such a policy should be followed.

10 However, with this modern day society and
11 its desire to participate, one quickly finds out that
12 public spirit is often self interest or personal
13 advancement.

14 I, therefore, feel that any Hydro project
15 attempted should be planned so that it will function
16 properly; then routes and sites determined, then
17 expropriation and then settlement - at one time so that
18 every person involved is treated on the same basis.

19 It is my belief that a great deal of the
20 trouble in modern property dealings is the fact that
21 government has tried to be reasonable and has dealt
22 reasonably with reasonable people. However, the hard
23 aggressive individual is then given preferential
24 treatment, which destroys the relationship previously
25 established with more reasonable people.

My experience with people is that they
want the service but they want it by someone else's



1
2 house and if Hydro continues to be sensitive to talk,
3 no matter how good their planning is, their timing
4 and level of service will be diminished.

5 I would also suggest that a service grid
6 for the Province be designed now so routes could be
7 set down and planning incorporated about them.

8 Very little seems to be published about
9 the money Hydro has invested in generating stations
10 out of which it is not allowed to build power lines.
11 Headlines have been given to the poor, badly done by
12 citizen through whose property the lines run, whose
13 arguments seem to diminish in direct proportion to the
14 amount of money received for the rights to proceed.

15 We have seen how much more the trans-
16 mission lines have cost but what about the unused
17 generating capacity? An investment of tremendous
18 magnitude lying idle while so-called environmentalists
19 create obstacles, irrespective of the assets wasted.

20 Peterborough is one one of the heaviest
21 of corridors of bulk electric transmission. Lines
22 extend to Toronto from Chenaux, Stewartville, Chats
23 Falls, Paugan and Gatineau in Quebec; two passing to
24 the north of the city and others to the south. These
25 have existed for years and are hardly visible, except
when within half a mile on either side. Ask people
of the city where these are and few could place them.



1
2
3 As a matter of fact, my daughter and
4 her husband have a farm lying under one of the lines
5 to the south of the city and they have found the lines
6 a very minor inconvenience compared to those presented
7 by Mother Nature.

8 In conclusion, may I state that I have
9 been involved with Hydro for the past thirty years,
10 sometimes in an adversary position, sometimes as the
11 Agent of a cooperating purchaser of their services and
12 I have always found that nothing has been done from a
13 power base. Always our situations have been established
14 with the pro's and con's evaluated and nine times out
15 of ten, Hydro has conceded to our submissions, and this
16 conceding is to^a municipally operated system in a city
17 of 57,000 people. I am sure Hydro has done the same
18 elsewhere.

19 Even in the matter of rates, Hydro allows
20 this utility to select the rates it feels will achieve
21 its purpose and only then injects its feelings. Usually,
22 such an injection is to prevent us in our enthusiasm,
23 minimizing our financial positions.

24 However, under the spotlight of publicity
25 this condition is changing, detrimentally.

It is my hope that this Royal Commission,
in its deliberations, shall investigate deeply enough
into the Hydro operation, that it becomes aware of



1
2 the feeling of mutual trust that has been established
3 between the Municipal Utilities and their duly elected
4 representatives and managements; one of great respect,
5 that has enabled all involved to work together to
6 provide to the citizens of Ontario the services they
7 have at the low prices they get them for.

8 I would further request that all
9 technical decisions be made with a greater proportion
10 of "judgement" than "theory".

11 Thank you, Mr. Chairman.

12 THE CHAIRMAN: Thank you very much,
13 Mr. Powell. Would you mind just waiting there because
14 at this time the Commission might wish to seek
15 clarification or additional information from you.

16 Also at this time I would like to
17 introduce Dr. Robert Rosehart who I should have
18 introduced previously. He is the scientific counsellor
19 for the Commission. The Commission has legal counsel
20 and scientific counsel, legal counsel is not with us
21 tonight, and so perhaps Bob Rosehart and members of
22 the Commission might wish to ask some questions.

23 You very clearly in this comprehensive
24 brief brought up some areas of considerable interest
25 to the Commission.

Ladies and gentlemen, one of the problems
of course in electric power generation and the



1
2 distribution is the problem of the peak and the valley.
3 Now, since our meetings have an educational aim, likely
4 for us to be educated, but sometimes there are very
5 important concepts and ideas raised during the
6 submissions and then we do perhaps explain some of those
7 to the people here. The problem is, you see, you have
8 got a peak and a valley. The valley is normally say
9 during the hours of the night, after midnight and so on,
10 when the industrial load drops and the domestic load
11 and so on and yet of course the system must cope with
12 the top level. It must cope with the peak, otherwise
13 it is going to break down, so that operation which can
14 smooth out the hills and the valleys is the one that
15 is operated from a system point of view in the most
efficient way.

16 You have heard from Mr. Powell that by
17 various processes they are doing this in a very good
18 way. I would say, and I don't know whether other
19 colleagues agree with this that we have not heard a
20 more imaginative approach to this problem anywhere
in the Province.

21 So this, you see, is a very, very
22 interesting question of point that has come up; and
23 to maintain a load factor of 70% itself of course is
24 just a manifestation of the way this is being handled.

25 DR. STEVENSON: I had the pleasure of



1
2 meeting Mr. Powell this afternoon briefly and I might
3 put a question to you that I asked you this afternoon.
4 It will be for purposes of the record and also
5 generally for the discussion.

6 Could you tell me, Mr. Powell, about
7 electric heating saturation of new residences in
8 Peterborough and apartment buildings. What percentage
9 of new housing starts are electrically heated in your
10 view?

11 MR. POWELL: You have me off-base there.
12 You didn't ask me that question this afternoon. The
13 major portion of the new electric apartment buildings
14 were being heated by electricity. We had a promotional
15 plan whereby it was attractive for them but when the
16 power shortage came we backed off this and went back
17 into the gas and gas is taken by some apartment
18 buildings. It seems to be attractive for apartment
19 buildings. We are getting conversion from older
20 homes; we are getting a bit of new construction in
21 electric heating.

22 DR. STEVENSON: And this applies to
23 individual residences as well?

24 MR. POWELL: Yes, individual residence.

25 DR. STEVENSON: You would not want to
hazard a figure as to the saturation?

MR. POWELL: No, it is very, very low,



1
2 the electric heating saturation is. I don't think
3 it would be 10%. I think we have 100 heat pumps in
4 the city, and 18,000 residential homes, so it is a
5 low percentage.

6 DR. STEVENSON: This is leading to
7 a question, arising from the comment you made that
8 in your view electric heating is an appropriate load
9 for your system in that to a degree at least the load
10 is on at night and therefore assists you in achieving
11 a more balanced twenty-four hour load. Are you
12 familiar with the Ontario Hydro studies that have
13 indicated that the electric heating peak in a twenty-
four hour day is between 7 and 8 a.m. in the morning?

14 MR. POWELL: I am not aware of that, no.
15 I am a businessman. We sell it. We look at the
16 effect on our overall load and those studies, I have
17 heard of them, but I am not conversant with them at
this time.

18 DR. STEVENSON: I think people come
19 down in the morning and plug in the coffee-pot, look
20 at the thermostat, and a lot of people turn it up.

21 MR. POWELL: One of the worst loads
22 we have is the electric cook stove. It stays on for
23 ten or twenty minutes and then goes off and this is
24 one reason you get something at that hour.

25 DR. STEVENSON: In any event, I just



1
2 raised the question of space heating because some
3 people say for a system such as we have in this
4 Province with a very much greater winter peak than
5 summer peak we should not really be interested in
6 electric heating. It makes more difficult the
7 problem of the winter peak.

8 MR. POWELL: Yes, but you have to be
9 realistic. What will you heat with? This is our
10 position. We think we can see our way clear to
11 supply energy to the householder into the foreseeable
12 future.

13 DR. STEVENSON: Yes, you made that
14 point very well that the primary sources of fuel
15 to Hydro are varied and what is more, so far as they
16 are nuclear, they are indigenous to this Province so
17 that is a good point.

18 The last question I have for you it
19 has to do with your recommendation that the service
20 grid, as you call it, be set down now by Ontario
21 Hydro.

22 By that I guess you mean that their
23 plan for the basic backbone 500 kV transmission
24 system should be made public so far as Hydro is able
25 to do so.

MR. POWELL: I think this could be
predictable. They know they are going to get a



1
2
3 load density; they could estimate load densities and
4 with this they could set up a pattern to serve these
5 load densities and they could establish routes well
6 in advance of the need of the lines.

7 As a matter of fact, in my experience
8 with Hydro the only time I have found them a little
9 bit backward is in the supplying of new feeders and
10 this is one of the easiest things to provide.

11 DR. STEVENSON: Hydro has produced
12 publicly a report called "Long Range Planning of the
13 Electric Power System" report 556 SP, February 1,
14 1974, in which they show an extremely small scale map
15 of Ontario with bulk power generation and distribution
16 systems shown on it. I think the scale was chosen
17 deliberately so that people who feel that is coming
18 right across my farm won't be able to reach that
19 conclusion, the scale is far too small; but it is a
20 beginning. Your comment is a new one, that they should
21 produce this in more detail.

22 MR. POWELL: We have done it for this
23 city and if we in our simple way can do it we think the
24 other people can. You have to estimate, but if you
25 get your grid and your distribution system set up ahead
of time - we buy sub-station sites before the subdivisions
are created, so when people buy their houses in there
they know there is going to be a sub-station, and it



1

2

takes a little bit of estimating.

3

4

DR. STEVENSON: Those are my questions,
thank you, Mr. Powell.

5

6

7

MR. COSTELLO: I just have one question,
Mr. Powell. We understand that you can interrupt your
electric heating load.

8

9

10

11

12

MR. POWELL: Yes. We have had this, as
I say, since 1930. We have electric water heaters in
80% to 90% of the homes in Peterborough and I think
about 80% of them are controlled and they get cheaper
power then because it is off peak and we can take these
off as we wish.

13

14

15

MR. COSTELLO: I understand that, but
I thought you also said you could turn off electric
heating, residential heating.

16

17

MR. POWELL: We have certain energy
using things in our plants and our water systems and
so forth that we cut off.

18

19

MR. COSTELLO: But the average household,
there is means of controlling that?

20

21

MR. POWELL: We have not instituted that.
We could, if such a thing was deemed feasible.

22

23

MR. COSTELLO: You would probably raise
your load factor that way.

24

25

MR. POWELL: It is a very good load
factor now. If you look at it laid out on the table



1
2 there are not many curves in it.

3
4 MR. COSTELLO: 70% --

5 MR. POWELL: Yes, you are an industry,
6 but we have 57,000 people in industry taking their
7 chances on when they do this or when they do that and
8 we can't control it that much.

9 MR. COSTELLO: Thank you.

10 MR. McCAGUE: Mr. Powell, one point I
11 find quite interesting and probably I don't understand
12 it is you report your yearly increase of $4\frac{1}{2}\%$.

13 MR. POWELL: Yes.

14 MR. McCAGUE: At a recent meeting we
15 had a report of a load increase of $6\frac{1}{4}\%$ with a
16 variation of -1% to +13%.

17 MR. POWELL: This could be because of
18 population increase. I was just using the load that
19 the individual homeowner would establish. He is
20 increasing the density of his own load within his house
21 at a steady rate. When you get new houses, all right,
22 with increase of population you will get a factor in
23 there for that.

24 MR. McCAGUE: I wonder if there is very
25 much variation in the population growth in probably
Peterborough and the other centre I have in mind. It
seems to me that you must be doing something here to



1
2 maintain that level increase that is effectively
3 controlling your peaks and your costs.

4 I am not sure that this is a proper
5 question but Bob Costello made comment on it.

6 MR. POWELL: I don't know whether we
7 are doing anything or the Unemployment Insurance
8 is doing it because people seem to be able to get
9 out into their own establishments. We have had more
10 houses built; we have had more customers; and we have
11 had no increase in population.

12 I think I quoted at one time there
13 were 3.8 people to a service and now there are 3.06,
14 and this does not provide for the apartment dwellings
15 which are bulk metered where you get 100 apartments
16 and they are only counted as one.

17 MR. McCAGUE: Thank you.

18 DR. ROSEHART: You seem to be very
19 concerned with reliability, Mr. Powell. Do any of the
20 major industries here in Peterborough have auxiliary
21 power systems?

22 MR. POWELL: Auxiliary power systems
23 are practically impossible to maintain.

24 DR. ROSEHART: But hospitals and
25 institutions.

MR. POWELL: To run this hotel you
would need a tremendously big plant. This is 200



1
2 kilowatts here and you would need a diesel engine to
3 go from here down to here.

4 DR. ROSEHART: I am speaking of providing
5 minimum services. I know certain institutions such as
6 hospitals have this type of system.

7 MR. POWELL: Yes.

8 DR. ROSEHART: Do Canadian General
9 Electric and Outboard Marine for example have any
10 auxiliary power system?

11 MR. POWELL: Canadian General has it
12 but in their wire thing all you need is a little spurt
13 in the power supply and the relays drop out and the
14 wire machine is lost.

15 DR. ROSEHART: Second short question, how
16 many major unplanned outages of more than ten minutes
17 duration would you have over a one year period - take
18 a random guess.

19 MR. POWELL: Don't ask the people on
20 the north end of the city that because we have under-
21 ground there and we had a problem, but we get --

22 DR. ROSEHART: Half a dozen?

23 MR. POWELL: I would say half a dozen.
24 That is an estimate.

25 DR. ROSEHART: Thank you.

THE CHAIRMAN: Thank you very much, Mr.
Powell. You have started us off very well with this



1
2 evening's discussion. Is Mr. Goering here?

3 Would you identify the public interest
4 group you are associated with.

5 SUBMISSION BY MR. J. W. L. GOERING.

6 MR. GOERING: Actually, I am associated
7 with a group, but I am speaking for myself. My name
8 is Jack Goering, from Port Hope, and this is a personal
9 brief to the Royal Commission.

10 Lady and gentlemen of the Commission:

11 The scope of the issues and concerns to
12 be considered by this Commission is immense, and the
13 difference between the possible extreme alternatives
14 that may be chosen are so great that the effects on
15 our society could range from beneficial to disastrous.

16 In trying to come to grips with such a
17 large problem in the short time that I have had
18 available since the package of "Facts" arrived from
19 the Commission, I feel very unsure of the possible
20 effect that one person might have on that Juggernaut
21 of the Power Establishment - Ontario Hydro.

22 As a former practising Engineer with the
23 oil and chemical industry, and as a Teacher of
24 Environmental Biology and Physics, I am well aware of
25 the enormous amount of technical information available
on the subject of energy. It would be presumptuous of
me, and tedious for you, if I was to recount this type



1
2 of information, so I have confined my attention to
3 attitudes, basically, for if we cannot approach a topic
4 like this with the correct attitudes we will never
5 succeed in coming up with viable solutions.

6 There are also, however, a few comments
7 under the specific headings suggested in the Commission's
8 Preliminary Statement - which I will mention under those
9 headings.

10 General: If one was able to step off the
11 world into space to watch the goings-on on our planet
12 Earth with a detached point of view, I wonder what one
13 would think of the general pattern of behaviour of our
14 human race?

15 One would see a species of animal that
16 over the millennia has come from being as one with the
17 other animals to being in a position of extreme dominance
18 - showing extreme callousness; demented, now, in its
19 quest for more and more power over the other inhabitants
20 of the earth, and the inanimate materials of the earth
21 as well. This species, which fights and kills its own
22 members, is intent - apparently blindly intent, on
23 destroying the very world that supports it. It
24 behaves as a pioneer plant does when it colonizes an
25 area, and in so doing changes its environment so much
that it is no longer suitable for itself but only for
others to follow.



1
2 The detached viewer of our spaceship-Earth
3 must wonder, as I'm sure many of you do, just what this
4 human animal is trying to accomplish. He has a
5 fantastic brain, but does he know how to use it to the
6 advantage of his species over the long term? He is
7 like a spoiled child who must have immediate satisfaction
8 and glory at the expense of long-term peace and
9 happiness.

10 There are a number of individuals of this
11 human species who have shown sense in suggesting that
12 we slow down our accelerating growth to assess the
13 consequences of continuing in our present direction
14 at our breakneck pace - Maurice Strong, Lamont Cole,
15 Barbara Ward, Dr. Norman Borlaug, Paul Ehrlich, Barry
16 Commoner, Aldo Leopold, Sir Peter Scott, Sir Frank
17 Fraser Darling, The Canadian Commission for Unesco in
18 1971 (1), the authors of "Blueprint for Survival" (2),
19 and the authors of the two reports to the Club of Rome -
20 Limits of Growth (3), and Mankind at the Turning Point
21 (4) - to name only a few. Yet, for the most part the
22 reaction to these appeals for sanity has unfortunately
23 been unconstructive criticism, ridicule, heckling and
24 jeering, together with vain counter-demands and statements
25 that we need more growth and a larger GNP to solve our
ills.

As an example of the incredible attitudes



1
2 that prevail today I have in my files a December 1974
3 advertisement by a prominent oil company that states
4 in large type "We're not running out of oil. We're
5 running out of time." The amusing thing - to the
6 detached viewer in space - is that we are running out
7 of both, but especially time! For us here on earth
8 the various crises around the world - energy shortages,
9 food shortages, wars, uprisings, terrorism, inflation,
10 climatic changes, population growth, should be enough
11 to make us consider taking a careful look at some of
12 the suggestions put forward by people like those
mentioned above.

13 It is unfortunate that Ontario Hydro
14 appears to be one of those monolithic institutions
15 which can do nothing but roll on like a snowball in
16 new snow gathering momentum and speed in its single-
17 minded approach to growth, unable to change direction
18 or heed the warnings, all under the almost "motherhood"-
19 like banner of "satisfying the demands of the public."
20 Unfortunately, again, it appears that the government
21 is not capable of controlling the behemoth Ontario
22 Hydro either; after all who could win an election
with a platform of "freezing in the dark?"

23 Growth: Based on the above general
24 remarks about the ever-increasing growth of the
25 province and the country, it is essential that a



1
2 population policy for Ontario be established.

3 This must be done immediately - i.e.
4 in 1976 - with full consideration of factors such as
5 birth and death rates and immigration and emigration.
6 With the population in Ontario being 7.7 million
7 (last census 1971), the goal should be, for example,
8 a maximum population of 10 million by the year 2000.
9 To achieve this with a minimum of hardship and social
10 disruption the guidelines and procedures must be
11 started now (1976).

12 Before one can expect the general
13 population to understand the need for restrictions
14 of growth of any sort they must have some understanding
15 of the inter-operation of population, food, resource
16 use - including energy, industrial growth and environ-
17 mental effects. This requires some form of education.
18 Since education does not appear in any of the Issues
19 and Concerns listed in the Preliminary Statement on
20 Issues and Concerns, I have taken the liberty of
21 including it under Growth, since it has a considerable
22 bearing on "how Ontario will evolve over the next
23 decades."

24 Education: In order to make correct
25 decisions one must have as many facts as possible.
In order to understand the facts and the effect
various factors have on one another, one must acquire



1
2 knowledge, wisdom and understanding.

3 At the moment our technological
4 achievements are out-stripping our ability to understand
5 the consequences of our so-called "progress". How do
6 we get caught up? Only by the proper kind of Education,
7 (Lawrence, 1971 (5), Moorehead, 1972 (6)).

8 Our educational programme in the
9 Elementary and Secondary Schools in Ontario is woefully
10 inadequate from an ecological point of view, (7) and
11 I might mention here that Ecology is the study of
12 living things (man included) in relation to their living
13 and non-living environment, although there is an
improvement in the Elementary School System.

14 In the Secondary School System, because
15 of the unstructured approach of the Credit System, I
16 think I am right in saying that it is not mandatory,
17 at any time, to take a course in Environmental Studies
18 or Ecology. It seems to me absolutely fundamental
19 that if we expect wise decisions to be made about
20 energy, food, population, resource and land use by our
21 High School students in a few years' time when they
22 are eligible to vote and make decisions of consequence,
23 then they must, and I repeat MUST, understand these
24 interconnections thoroughly, or at least basically,
25 before the day they cast their vote, (8), (9). By
the time students reach university, where people



1
2 specialize in particular areas, the environmental
3 basics should be known to everyone. If they do not
4 go to university they will have learned, hopefully,
5 these basics between Kindergarten and Grades 12 or
6 13 in the programmes suggested above.

7 It is worth drawing attention to an
8 undergraduate course being given in the Engineering
9 Department at Queen's University called 'Nature,
10 Science and Man' instituted basically by Prof. R. H.
11 Clark. (10). This is an excellent wide-ranging
12 course which ensures that engineers - and others
13 who take the course - are truly close to being well-
14 educated. The course includes law, economics,
15 attitudes and beliefs, society, psychology, religion,
16 politics, as well as environmental, technological and
17 industrial topics.

18 So much for the education of our students.

19 At the present moment I would suggest
20 that the majority of the adult public, be they
21 engineers, economists, lawyers, nurses, politicians,
22 steelworkers, taxi-drivers, doctors, housewives, etc.,
23 has a very sketchy view of the same items mentioned
24 above, (11), and that most people are finding out
25 about them mainly as a succession of crises. The
natural reaction is to ignore them, or consider them
distasteful because, firstly, they are not understood



1
2 and, secondly, they disturb the normal pattern of
3 their life and create anxiety, (12).

4 Putting decisions off or ignoring the
5 problems associated with growth is the worst possible
6 thing to do, (13). Therefore, a study programme is
7 necessary for adults also. This must be government-
8 sponsored because of the magnitude of the project and
9 consist of, for example, a series of layman-oriented
10 books or pamphlets on various key topics indicating
11 their interdependence. (Environment Canada has put out
12 a number of useful booklets of this sort, (14) (15).)
13 There may need to be some incentive to take a short
14 evening course given by qualified individuals using
15 films, audio-visual aids, etc. It is the only way we
16 are going to be able to make up for the dearth
of environmental knowledge now existing country-wide.

17 In both cases, for children and adults
18 alike, it can be seen that time is the most important
19 factor, and the urgency of starting a comprehensive
educational programme cannot be overstressed.

20 Economic: As has been mentioned above
21 our growth rates cannot be maintained without
22 catastrophe (16). Economic growth and therefore
23 energy growth rates must be curtailed and brought to
24 zero and preferably reduced. As Russell E. Train,
25 administrator of the Environmental Protection Agency



1
2
3 in the United States, said in a lecture to the Annual
4 Meeting of the American Association for the
5 Advancement of Science, on the 25th of February, 1974,
6 "By choice or by necessity, we are going to have to
7 learn to live within our limits" (17). There are,
8 in all likelihood, some factors which may still have
9 to grow as we change our style of living, but to even
10 think of allowing the rate of demand for electrical
11 power to continue at its present 7%, or greater, rate
12 is ridiculous.

13 The graph, or curve, for all present
14 growing demands must, as soon as possible, be made to
15 follow this shape which is described in "Mankind at the
16 Turning Point" (18), as the curve of Organic growth,
17 an "S" type of curve.

18 To assist in conserving or reducing
19 electrical energy consumption the rate structure
20 should be designed to favour conservation by increasing
21 the cost as the use increases. At the moment the rate
22 structure encourages high use of electrical energy to
23 take advantage of lower rates.

24 To make more effective use of off-peak
25 hours rates again can be designed to encourage use
at low demand times. In addition I understand that
the State of Vermont is using a system called Ripple
Control, which involves sending signals along certain



1
2 power lines to control selected appliances during
3 times of peak demand, switching them on again during
4 low demand periods (19).

5 Another method of saving electricity or
6 storing the electricity generated in off-peak hours
7 for use in peak periods is pumped hydroelectric
8 storage. (20) This is used in the northwestern United
9 States and also in Britain and Europe, It consists,
10 basically, of pumping water up into a storage area
11 during periods of low demand for the operation of the
12 turbines during high demand periods.

13 Land Use: There is no way that we can
14 continue to allow our good farmland to be used for
15 housing, roads and industry, including power plants
16 and transmission lines. The growth of the electrical
17 power system can only lead to a decrease in available
18 agricultural land either directly or indirectly.

19 As well as agricultural land there are
20 wild lands, wilderness areas and recreational areas.
21 The gradual destruction of our natural rivers for the
22 purposes of hydroelectric power generation is a very
23 sad situation. As a person who has canoed extensively
24 in Ontario, Saskatchewan, the Northwest Territories,
25 the Yukon and Alaska, it causes me great concern to
see how few untouched rivers there are left in the
Province both available for wilderness canoeing and



1
2 within reasonable travelling distance of the large
3 urban areas. As a case in point the Missinaibi River
4 is being considered by Ontario Hydro as a place for a
5 peaking dam which would supply only 0.003% of Ontario's
6 1973 electricity (21). This is one of the few rivers
7 that is almost untouched by the works of man and is an
8 excellent canoeing river as I know from having
9 travelled it from near Wawa to Moosonee on James Bay.

10 Outside the province we can see the
11 environmental disasters around us. The James Bay
12 monstrosity in Quebec, the Nelson-Churchill diversion
13 and its effects on Southern Indian Lake - both are
14 spoiling forever land used by Indians, Eskimos and
wildlife.

15 Further afield the Ross Dam on the
16 Skagit River in British Columbia (22), the W.A.C.
17 Bennett Dam on the Peace River and its effects on the
18 Peace-Athabaska Delta (23), and the discussion of
19 power generation on the Great Bear River at the outlet
20 of Great Bear Lake in the Northwest Territories. When
21 will we learn that there are side-effects or
'diseconomies' besides the so-called benefits?

22 Environmental: It is difficult to
23 separate some of the items clearly into just one of
24 the categories listed as issues. It is no doubt
25 apparent that many points that I have mentioned under



1
2 one heading could just as easily be mentioned under
3 another, or under several. I apologize for the
4 apparent disorderliness, but in actual fact this
5 illustrates quite clearly, the maxim, stated I believe
6 by Garrett Hardin, 'you can never do only one thing'
7 or slightly differently by Barry Commoner 'everything
8 is connected to everything else.' (24).

9 Power generation should be a mix of hydro,
10 coal and nuclear plants. Alternative sources, such as
11 solar heating and wind power, should be investigated
12 and used more extensively. Incentives of one form or
13 another will help to develop these alternative sources
14 which are less harmful environmentally than the former
15 three.

16 The recent and on-going experiences in
17 Port Hope with radio-active wastes should be a good
18 example of how careless practices a number of years
19 ago can cause inconvenience and anxiety to the public
20 and show that nuclear power plants and their related
21 activities should not be allowed to proliferate
22 unquestioned.

23 The impact of large fossil fuel and
24 nuclear plants must be reduced by better engineering
25 design in order to decrease pollution from effluents
and to reduce heat losses to bodies of water.

Particularly sensitive areas (ecologically



1
2 speaking) should be avoided at all costs.

3 Large and extensive transmission systems
4 may be efficient in switching energy from one area to
5 another, however the environmental effect of these
6 corridors must be minimized. It should also be
7 remembered that a large system is far more vulnerable
8 to damage by terrorist activity than a number of
9 smaller ones. The ecological analogy here is the
10 fragility or vulnerability of an ecosystem with few
11 species as compared to the stability of an ecosystem
12 made up of a large number of species.

13 Conservation: There are numerous papers
14 on how to conserve energy. (See References and Biblio-
15 graphy). It is now imperative that government, federal
16 and provincial, back incentive programmes to carry out
17 these measures. Starting in 1976 realistic plans to
18 persuade people to insulate houses and businesses to
19 insulate commercial buildings to recommended levels
20 must be introduced. In addition steps must be taken
21 to reduce the energy consumption of household
22 appliances and also of cars, trucks and buses by proper
23 streamline design and the lowering of speed limits.
24 As an example of a good washing machine design, from
25 an energy-saving point of view, we have what is called
a "suds-saver". This allows the saving of the hot
water for a second or even third washing - a very



1
2 considerable energy saving over the years. I do not
3 know of a "suds-saver" model on the market at present.

4 Ontario Hydro, of course, would be the
5 ideal promoter of such energy-saving appliances. More
6 extensive use of heat pumps for houses, etc.

7 Other items are: Ripple control as mentioned
8 above.

9 Education programme - mentioned
10 above.

11 Recycling. This is a complete
12 field in itself and embodies the meaning of the word
13 Conservation as used in their brief.

14 Electric Power Generation: See under
15 Environmental. Most of these topics have been
16 discussed under that heading. It is worth mentioning,
17 however, that Andrew McKillop, in an article called
18 "Unravel the Grid" states that in Britain "centralized
19 electricity production is a monument of inefficiency"
20 (25). References are made to District heating systems
21 in Sweden where efficiencies are improved by the use
22 of low level heat for buildings and to the high
23 efficiencies of Heat pumps.

24 Technological: Predictions of load
25 growth along the lines of those used in Ontario Hydro's
Report No. 556 SP "Long-Range Planning of the Electric
Power System" are a necessity. It would seem logical



1
2 to use some of the methods and expertise already
3 in use, i.e. systems dynamics and computer models in
4 conjunction with Scenarios which depict the possible
5 end-results of following various choices (26). Ontario
6 Hydro's Report does not go far enough in time to be
7 able to assess the validity of their short-term
8 conclusions.

9 Implications Beyond Ontario: Ontario,
10 as the nation's most industrialized and populous
11 province must set an example both to Canada and
12 to the rest of the world. It must set realistic
13 goals - long term goals - not just for energy use
14 but for all the related factors also. Doing this will,
15 I am sure, bring about the realization that the more
16 self-sufficient we in Ontario can be, the less
17 affected we will be by shortages in fuels or other
18 resources in other parts of the world or Canada.

19 Summary: To summarize briefly, the
20 main points are as follows:-

21 1. Our attitudes to life in general must change.
22 We have become a wasteful, reckless society with little
23 understanding of the consequences of our actions over
24 the long term. We must become conservation oriented,
25 especially with regard to energy use. We might even
use human muscle-power and be healthier for it.

2. Educations of the present population and of



1
2
3 those to follow must be started now to avoid ever
4 worsening problems.

5 3. Because of the time lag and delay in changing
6 attitudes the most important factor is TIME. We can
7 not afford to wait and see whether we will find more
8 energy sources. We must use less NOW.

9 4. Energy saving projects must be instituted NOW.
10 This will make a huge difference in the energy required
11 between 1983-1993 and beyond. Once we start reducing
12 demands we will be on the right track.

13 5. Economic growth seems to be the basis of our
14 affluent society and also the source of many of our
15 problems. We must re-examine it. It is not providing
16 adequate answers.

17 6. Ontario Hydro, being a large public service
18 organization must recognize the above points and, in
19 fact, lead the way with the government's help to
20 ensure that they are implemented.

21 Respectfully submitted.

22 ---REPORTER'S NOTE: The following are references
23 supplied by Mr. Goering.

- 24 1. Canadian Commission for Unesco, (1971) Economic
25 Development and Human Survival. July 1971.
2. Blue-print for Survival, (1972) The Ecologist,
Vol. 2, no. 1, Jan. 1972.
3. Meadows, D.H., etc. (1972) The Limits to Growth.



4. Mesarovic, M. and Pestel, E. (1974), Mankind at the Turning Point, E. P. Dutton & Co.
5. Lawrence, S.G. (1971) Education in a Threatened Planet - the Part that Science Teaching could play. School Science Review, Dec. 1971, Vol. 53, no.133.
6. Moorehead, Caroline (1972) Ecology 'more important than the 3 R's'. Times Educational Supplement, 21 Jan. 1972.
7. Ministry of the Environment, Ontario (1973) Status of Environmental Education in Ontario-1973. A preliminary study. Sept.1973. p.63-71.
8. Fischer, John, (1969) Survival U: Prospectus for a Really Relevant University. Environmental Handbook.
9. Mesarovic, M. etc. p. 20-21, p. 143.
10. Nature, Science and Man. (1973) Queen's University, Engineering Department.
11. Grescoe, Paul (1975) Crucial Options, Imperial Oil Review, Vol. 59, No.5, 1975, Issue No. 326
12. Toffler, Alvin (1970) Future Shock, Chapter 15.
13. Mesarovic, etc. p. 156-7.
14. Environment Canada, (1972) The Environment needs you.
15. Environment Canada (1972) A pollution primer.
16. Mesarovic, etc. p. 6.
17. Train, Russell (1974) Quality of Growth. Science, Vol. 184, No. 4141, 7 June 1974, p. 1050.
18. Mesarovic, etc. p. 7-3



19. Globe and Mail (1975) Ripple Control - Vermont experiment cuts power and bills. Globe & Mail, Dec. 3, 1975.
20. Robinson, Arthur L. (1974) Energy Storage I: Using electricity more efficiently. Science, Vol. 134, 17 May, 1974. p. 785.
21. Globe and Mail (1975) Missinaibi Dam opposed. Last chance for a wild river. Globe & Mail, 13 April, 1975.
22. International Joint Commission (1971) Environmental and Ecological consequences in Canada of raising Ross Lake in the Skagit Valley to Elevation 1725'.
23. Peace-Athabaska Delta Project Group (1972) The Peace-Athabasca Delta.
24. Commoner, Barry (19) The Closing Circle.
25. McKillip, Andrew (1973) Unravel the Grid. Ecologist, Vol. 3, No. 11, Nov. 1973, p. 412.
26. Mesarovic, etc. p.77.

BIBLIOGRAPHY

There is an extensive Bibliography at the end of the Report:-

Energy: Conservation and Alternative Sources, by David Wood of Energy Probe, University of Toronto, which I would recommend. JWLG.

Also:- Bibliography No. 7, Energy, by Alternatives, Trent University, Peterborough, Ont.



1
2 Mishan, E.J. (1969) Growth: the price we pay. Staples
3 Press.

4 Jarrett, Henry, ed. (1966) Environmental Quality in a
5 growing economy. Johns Hopkins Press.

6 THE CHAIRMAN: Thank you very much, Mr.
7 Goering, for a most comprehensive submission. You
8 took much longer than the quarter of an hour but I did
9 not have the heart to sort of interrupt the eloquence
10 of the submission.

11 Incidentally, I apologize for the noise
12 pollution, ladies and gentlemen, to which some of
13 you are probably being subjected at the back of the
14 hall. I still feel if you are feeling any discomfort
15 from that that there are still quite a few seats up
16 here.

17 It is interesting that the Commission has
18 had this problem on at least ten occasions and so we
19 are getting accustomed to it so if you can stand it,
20 we can.

21 I would like to perhaps, in connection
22 with your brief, Mr. Goering, to first of all stress
23 that the Commission, certainly welcomes your comments
24 vis-a-vis education. We are very conscious of this.
25 The matter has been raised on many occasions during
our tour of the Province. Your idea that a series of
layman orientated books or pamphlets on various key



1
2 topics indicating their inter-dependence, and you
3 are talking about the inter-dependence of various
4 activities, not the least energy, is very well taken.

5 You will be interested to know at our
6 very first meeting of this Commission a high school
7 student stood up and made this self same suggestion
8 and the Commission is now in process of commissioning
9 a series of such pamphlets.

10 On page 8 you refer to pumped storage.
11 Ontario Hydro of course does have at least one and
12 maybe another in the planning stage fairly large
13 pump storage facility at Niagara Falls. This of
14 course, ladies and gentlemen, is a very key method
15 of storing energy and particularly of equalizing
16 this valley-hill problem we referred to previously.

17 I think at the bottom of page 3 this
18 0.003%, I think that this is a bit small. It only
19 works out at 500 kilowatts and I would think that
20 maybe there is a decimal point or so perhaps missing
21 there. I have just figured it out. In 1973 the
22 .003% would be only 500 kilowatts which is not much
23 more than would be required for this hotel.

24 MR. GOERING: This is taken directly
25 from the Globe & Mail, so it must be a typographical
error.

THE CHAIRMAN: I suspect so. I thought



1
2 I would just mention that.

3 There are many other points that could
4 be commented on here and I am sure my colleagues will
5 like to raise them at this time.

6 MR. COSTELLO: Not really. You have
7 covered the waterfront here, Mr. Goering.

8 MR. McCAGUE: Well, no. You have given
9 us a great deal of time and thought and the last
10 sentence in your summary, item no. 1 "we might even
11 use human muscle-power and be healthier for it". I
12 think the farmers in particular recognize this and I
13 believe we all could be giving a lot more thought to
it. Thanks very much.

14 DR. STEVENSON: Those who don't have the
15 brief don't realize that Mr. Goering has added 26
16 bibliographic items at least here, maybe more, thus
17 setting a new record in 200 submissions. But this is
18 an excellent bibliography, not all articles and
references that are familiar to me, at least.

19 There are too many points to even start
20 a discussion. We will have to do it in some other
21 forum, Mr. Goering.

22 THE CHAIRMAN: We are most grateful to
23 you. This is really an exemplification of what this
24 Commission means by public participation.

25 Thank you very much.



1
2 Perhaps we can take one more submission
3 before we break for coffee, and it is Dr. Cyril Carter.

4 SUBMISSION BY DR. C. CARTER.

5 DR. CARTER: My name is Cyril Carter and
6 I am a Professor of Mathematics at Trent University.
7 I am representing myself. Before I came to Trent I
8 did work in the power industry in England for twelve
9 years and I think in order to save time I would like
10 to summarize the first part of my presentation and then
just skim the rest of it.

11 The first part of it, I gave reasons
12 based on my own experience in the power industry why
13 complicated technical assessments should not be taken
14 too seriously quite simply because they are quite
15 commonly completely wrong.

16 Picking up my brief half way through the
17 second paragraph, for the benefit of the Commission,
18 I would like to make my first suggestion. That is,
19 when the deluge of submissions starts descending on
20 you from Ontario Hydro and similar bodies, before you
21 study them, get the authors to explain in simple
22 language just what assumptions are built into the
23 calculations and how reliable is the data used. I
24 suspect that the explanations will often be so
25 unsatisfactory that the submissions can be suitably
disposed of. Hydro's preliminary submission to the



1
2 Commission is a good example, for it contains the
3 implicit assumption that electric power consumption
4 will go on growing rapidly. If this assumption is
5 accepted then Hydro is undoubtedly doing a good job
6 but if the assumption is rejected then the 14 questions
7 on two pages of the large document on the need for new
8 facilities are almost the only worthwhile content in
9 the whole document; and yet Hydro is asking the
10 Commission to review its "priority" projects in the
11 first stage of the enquiry, before these fundamental
12 questions have been answered!

13 As an example I would like to consider
14 the problem of electricity rates and tariffs. This is
15 just the sort of question where the computer expert can
16 really go to town, building up complex models which can
17 deduce exactly just how much each user should pay for
18 his electricity. But if the fundamental assumptions
19 on the model are wrong, then the results will be worth-
20 less. As we say in computers, garbage in, garbage out;
21 or to paraphrase an old joke, why let Ontario Hydro
22 spend a million dollars to produce the wrong answer;
23 I'll give you the wrong answer for nothing.

24 The simple fact is that in spite of
25 all the detailed studies the present rates both of
Ontario Hydro and the Municipal Utilities are
demonstrably ridiculous. A glimmering realisation of



1
2 this comes through in the Energy Board's report on
3 Hydro's 1976 rates, and I quote "...an unanticipated
4 improvement in load factor next year could,
5 paradoxically, cause Ontario Hydro some financial
6 embarrassment".

7 I might add here that Mr. Powell in the
8 Peterborough Utilities Commission might note that this
9 means that even our peak electricity is being provided
10 at the low cost very largely due to escalating prices
11 of coal so coal is not a cheap alternative.

12 In the same report we are told that the
13 estimated cost of the second Pickering Nuclear station
14 is nearly three times the cost of the first station.
15 A few simple sums lead me to estimate, and I must
16 admit possibly wrongly, that the cost to the consumer,
17 at today's prices, of electricity from Pickering B
18 station will be about 3¢ per kilowatt hour. So nuclear
19 power won't be cheap either.

20 Now, the only reason we need Pickering B
21 is because some people insist on using large amounts
22 of electricity, and propose to use even more in future.
23 It seems reasonable that these people ought to pay for
24 Pickering B and the rest of the expansion program,
25 while the moderate user of electricity should pay just
the actual cost of producing electricity from existing
stations, probably a little more than 1¢ per kilowatt



1
2
3 hour. Present tariffs work on exactly the opposite
4 principle. Under the Peterborough Utilities residential
5 tariff, for example, the consumer of 250 kilowatt hours
6 per month, that is a low consumer, pays 3.6¢ for each
7 kilowatt hour, while the heavy user, using ten times
8 as much, pays an average of 1.6¢, less than half.
9 Furthermore the former's bill has increased far more
10 over the last six years than the latter's has. There
11 is also a flat rate for water heating which encourages
12 waste, and permits the heavy user to consume
13 electricity at ridiculously low prices, less than 0.4¢
14 per kilowatt hour.

15
16 There is nothing particularly novel
17 about introducing inverted tariffs. Quite a number
18 of U.S. Utilities have already done it. We won't even
19 be pioneering if we do it in Ontario.

20 In view of my remarks so far, the
21 Commission will not be surprised to learn that I
22 favour strict conservation in the use of electricity,
23 and a drastic reduction in Hydro's expansion plans.
24 In my view, this is the real stage one priority for
25 the Commission. Over the last three years, oil prices
have nearly doubled but electricity is up only by 25%.
It is already more economic for me to heat parts of my
house by electricity, and I suggest that urgent action
is needed to prevent wholesale switching to electricity.



1
2 I am talking about economic in a now personal sense
3 there, of course.

4 For the conservationist, the recent
5 growth in electric heating, actively sponsored by the
6 Utilities, is a particularly wasteful use of energy,
7 giving overall conversion efficiencies of less than
8 30 percent, compared with the 80 percent or more from
9 a good furnace. Arguments that better control and
10 insulation close this gap don't impress me, since good
11 control and insulation ought to be used with any
12 heating system. There is a limited case for off-peak
13 heating loads, but otherwise, electric heating should
14 be strongly discouraged. To some extent, the realistic
15 pricing of electricity discussed earlier would encourage
16 conservation and remove the need for expansion, but
17 other steps are also needed. Ontario Hydro must recognize
18 that it may not be able to meet demand in future years,
19 and must develop methods for interrupting loads
20 which minimize inconvenience, and avoid disruption of
21 essential services. There must also be more emphasis
22 on the development of simple methods of utilising
23 renewable energy resources.

24 I hope and believe that the Commission
25 will make a detailed study of the untapped potential
in renewable energy, and I would like to throw out two
thoughts. Environmentally I think it is highly



1
2 desirable that new schemes should be small-scale and
3 simple. Grandiose schemes for solar energy plants
4 covering many square miles are a continuation of the
5 technological thinking which led us into our present
6 trap, whereas H. R. Hay has demonstrated that quite
7 simple building design features can markedly increase
8 the utilization of solar energy.

9 My second thought is that there may
10 still be considerable scope for hydroelectric
11 generation in small plants. I was interested to
12 note that an earlier brief to the Commission made that
13 similar point at another hearing. Locally, if we
14 look at it, the eight mile stretch of the Otonabee
15 river between Lakefield and Peterborough has an
16 average flow of about 3,000 cubic feet per second and
17 a drop of 140 feet giving a theoretical hydro potential
18 of about 35 megawatts. At present four small stations
19 produce an average, as far as I can discover, of about
20 8 megawatts; and four dams with a combined head of 43
feet are undeveloped, so there is clearly some scope
for getting more electricity out of the river here.

21 The Operations Engineer at Trent
22 University, who runs one of the Otonabee power stations
23 told me that he thinks it would be possible to develop
24 a capsulated power station rated somewhere around a
25 megawatt which could simply be inserted in the water



1

2

3

4

at a dam. Naturally, he is cautious about the economics of such a capsule, but it might be feasible if produced in quantity.

5

6

7

I would hasten to add that if we do anything like this I would regard environmental issues as paramount.

8

9

In conclusion may I say that we have operated a solar-heated, wind-powered clothes drier at my home for many years. It's called a clothes line.

10

11

12

13

THE CHAIRMAN: Thank you very much indeed, Professor Carter. Have you any points, Bill. It is fairly clear to me; I don't have any points of clarification, have you?

14

15

16

17

18

19

20

21

22

23

24

25

DR. STEVENSON: I confess to being the author of the statement which you quoted from the Ontario Energy Board in your brief. Unfortunately, I did not really explain what I meant, I guess. Very briefly the point I was trying to make there was just that with the current prices of coal having risen so dramatically the last year or so and combined with the fact that if Hydro was faced with this sudden new load, one for which they can't have capacity, they supply the load from a coal-fired station. There is no easy way for Ontario Hydro to obtain in its rates the price they are paying for the extra coal burned so that an increase in load factor here, we were



1
2 talking earlier about a 70% load factor here in
3 Peterborough, if that became general for some reason
4 Hydro would be burning a lot of U.S. coal at a
5 substantial loss to itself and this is why we used
6 the term "paradoxical". A much more sophisticated
7 pricing system is necessary if you want to avoid that
8 kind of paradox. I don't think inverting the rate
9 structure would do it, for example, but having come
10 from England you know what the CEEB does. It charges
11 you different prices, in some parts of England at
12 least, and Scotland, during the daytime and gives the
13 customer who is willing to wash his dishes or laundry
14 at night a substantial reduction. That could be done
15 in Ontario so there certainly are areas of rate
16 performance which would reduce the paradoxical nature
17 of the dilemma that you have indicated.

18 One other comment, you make reference to
19 small scale and simple technology. Some of us here
20 in the Commission are at least part way through a new
21 paperback that I would recommend to anyone called "Small
22 is Beautiful". It is written by a chief economist of
23 the British Coal Board. In some sense it is not a very
24 practical book; I think that its guiding philosophy
25 is very attractive and I think it is in line with
your own.

THE CHAIRMAN: Thank you very much,



1

2

Professor Carter. It is good of you to come along.

3

4

5

6

7

Ladies and gentlemen, I think at this time we will break for coffee and I think after coffee we will put up that partition and try to get everybody into this end and it may cut down this problem that we are having and I am sure that the people at the back are having.

8

9

10

So if most of us can get into that section we will see that the Hotel people will put this up.

11

12

Thank you very much. We will reconvene in about a quarter of an hour.

13

---SHORT RECESS.

14

15

16

THE CHAIRMAN: Ladies and gentlemen, I think we might carry on at this stage. Hopefully, this will be an improvement but we will just try it anyhow.

17

18

Dr. Robert Page, please, of Trent University.

19

SUBMISSION BY DR. ROBERT PAGE.

20

21

22

23

24

25

DR. R. PAGE: Thank you, Mr. Chairman. My name is Bob Page. I am a Past National Chairman, Committee for an Independent Canada, and in that capacity I have done work before both the Ontario Energy Board and the National Energy Board in Ottawa; and before any people in this room from the Ontario



1
2 Energy Board scream protest, most of my previous work
3 has been in connection with oil and natural gas policy.

4 However, I think it is very important
5 that we begin to look at energy as an integrated package
6 and we look at it in terms of the wider implications
7 in both the economic and ecological points of view.

8 With that in mind I am attempting to
9 appear tonight not to try to explain the solutions
10 that are involved for the Commission but in an
11 attempt to try and give my own views on the issues
12 that I hope the Board will consider at its main
hearings.

13 So tonight I am commenting principally
14 on your own document, RCEPP-02 "Preliminary Statement
15 on Issues and Concerns".

16 The first issue I would like to look at
17 tonight is in connection with growth. I see this
18 area is absolutely crucial to the future of the
19 province and I hope the Commission will consider very
20 seriously indeed the non-conventional arguments about
21 limits to growth. Neither the National Energy Board
22 in Ottawa or the Ontario Energy Board in Toronto have
23 done so thus far. I am well aware that quantification
24 of projections in this area is very difficult but I
25 do believe it is crucial to a serious analysis of the
future options open to this province over the coming



1
2 two decades. Growth in the future will be at a lower
3 rate and we must plan carefully the socio-economic
4 implications. Canada is already the second highest
5 per capita user of electricity in the world and this
6 alone raises a great many questions for the future.

7 Secondly tonight I would like to look
8 for a few moments at economics. It will be very
9 clear from what I have to say the particular slanted
10 opinions that I represent.

11 First of all, the projected price
12 increases of 29.7% will certainly be a serious
13 ingredient in inflation in the future because this
14 is only the first of many such projected increases
15 when you look at some of the future planning for
16 Ontario Hydro for the future.

17 Your Commission, sir, I hope will then
18 study the socio-economic effects of these price
19 increases in the future. Canadians today use about
20 25% of their disposable income directly or indirectly
21 for energy. This includes oil, natural gas, and
22 electrical power. Energy prices are rising faster in
23 Canada than either the general rate of inflation or
24 the general rate of incomes and Canadians in the next
25 decade then will I fear see a higher and higher
percentage of their incomes going for energy and
therefore suffer a corresponding decline in their



1
2 standard of living.

3 Secondly, in the economic sphere, I
4 feel that pricing influences very directly the
5 competitiveness of Canadian industry and the security
6 of jobs for Canadian workers. We are already seeing
7 in this country that the exports of manufactured goods
8 are in a serious competitive position. Our labour
9 costs are very high, the size of our production runs
10 are relatively low.

11 One of the few areas for the future in
12 terms of our international competition where we may
13 have some help is in terms of energy costs. If we
14 throw this away we may in fact be throwing away a
15 great number of future jobs and security and prosperity
16 for Canadians.

17 Thirdly, in terms of capital require-
18 ments, I hope that the future planning of Ontario
19 Hydro will be considered in the context of the wider
20 priorities of the Canadian economy as a whole.
21 Canada could require, over the next decade, \$150 billion
22 worth of capital and up to \$40 billion of that in terms
23 of some of Ontario Hydro's own projects. The Ontario
24 Hydro figures are from the Press.

25 This pattern could mean massive capital
inflows on the short term for both Ontario and for
Canada and this could increase the upward pressure



1
2
3 on the levels of the Canadian dollar and decrease the
4 competitive position of Canadian exports as a result.
5 Ontario Hydro in its planning must look at that in
6 terms of the wider economic implications.

7 In addition, capital inflows tend to be
8 inflationary. They tend to add to more and more
9 capital chasing the same number of goods and services.

10 Another point, if we attempted to then
11 internally finance all this future development we
12 would in fact be tapping off capital which will be
13 needed in the future for secondary manufacturing,
14 for housing, for hospitals, and for other goods and
15 services in the Canadian economy. This is all taking
16 place at a time, Mr. Chairman, when the key source
17 for capital in the western world, the New York money
18 market, is going through a very difficult period
19 indeed both for utilities and for municipalities.
20 A recent estimate of one of the leading American
21 financial journals placed the total figure at
22 \$4.5 trillion as the needs of the Americans alone in
23 their own capital market through the next decade.

24 This is all part of a pattern of
25 massive increases in debt right across the economy
and this in turn, if Ontario Hydro follows the same
pattern, could undermine the whole economic viability
of its own system. Many U.S. Utilities are currently



1
2 experiencing this fall.

3 As of the 31st of March, 1975, 50 leading
4 U.S. Utilities had a combined debt of \$134 billion or
5 about \$580, per man, woman and child in the U.S., or
6 the cost of carrying that debt at present interest
7 rates is about \$200 per year for every family of four.
8 This of course comes out of the rate base either
9 directly or indirectly in terms of residential or
10 industrial customers. Hopefully in Canada we can learn
11 from some of these mistakes in other jurisdictions and
profit for the future.

side 12 Generally speaking, then, in this area
13 we are moving into a period in the next decade which
14 some American economists have called the "Capital Gap"
15 and we in Canada will not be able to finance all the
16 capital intensive energy projects currently being
considered.

17 You, sir, I hope will consider the
18 priorities for the future of Ontario in the light of
19 these considerations.

20 In terms of environmental problems,
21 these are a matter of great concern as well, especially
22 as future increases in generating capacity, as we have
23 already heard tonight, will be using largely coal and
nuclear fuels.

24 In the past too little consideration has
25



1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

been given to the long term costs and damage of many of these areas as opposed to merely the short term ones. A number of environmental groups have detailed concerns here and I don't wish to prolong the proceedings tonight by going into them.

Another area is conservation. As we move from a society based on conspicuous consumption to one based on conservation and recycling ethic, there are profound changes for energy consumption and life styles. Greater efficiency alone is not enough; we must be prepared to tax heavily or abolish useless energy consuming articles, such as electric toothbrushes; but price alone will not achieve significant savings except possibly in the industrial sector.

In addition, premium fuels such as natural gas should not be used for the generation of electricity.

The next item I would like to consider just for a moment is exporting. Ontario should not build excess capacity for the export market but only allow off-peak exporting, such as to meet summer demand in the New York State market. But we must be very careful in the future to avoid becoming a dumping ground for additional environmental problems by exporting large quantities of electric power and generating them on our shores and in our land.



1
2 A cost/benefit analysis of Hydro export
3 would probably show nil return on a long term basis if
4 one was to look at Canada as a whole. The Columbia
5 River Treaty and the B.C. Government are a fine example
6 of that in terms of the material that has come out in
7 the last three months on that project. Costs usually
8 presented offer the short term while benefits in terms
9 of the long term implications.

10 Export contracts, once entered into,
11 are very difficult to withdraw from without creating
12 an international incident.

13 Canadian public utilities should use
14 Canadian suppliers wherever possible. For people in
15 Peterborough this has particular significance as we
16 are a supplier of generators. This is one area of
17 high technology industry which Canada should foster
18 and it should be tied into a national science and
19 industrial strategy, looking at our particular
20 environmental and other concerns.

21 Ontario as well should develop for the
22 future Canadian sources a supply for coal and the
23 necessary transportation infrastructure to bring it
24 to this province.

25 Because of the difference in time zones,
I personally favour an east-west national grid which
seems to make more sense than any future development



1
2 of a north-south continental grid.

3 Lastly, sir, before closing I would just
4 like to take a moment on the question of the funding
5 of the public interest groups, as I have had
6 considerable experience negotiating over the last
7 three years with the Federal government. I would like
8 to take this opportunity to say that the Commission
9 is to be commended for its preliminary statement which
10 is a great step forward in Canada and similar, I am
11 told, to the policy of Mr. Justice Berger in the North
West Territories.

12 I hope the Commission might consider an
13 application in fact for my own group, the CIC, for
14 research and presentation of a document looking at some
15 of the socio-economic, export, and industrial strategy
16 concerns which we have attempted to raise very briefly
tonight in this document.

17 Before closing I would also like to warn
18 the Commission that we hope there will be no tokenism
19 involved with this but that the money made available
20 will in fact be enough to do a serious job. We wish,
21 in the public interest sector, to work on a
22 professional basis, not on the basis of merely a hand-
in-glove existence which is the current situation.

23 Mr. Chairman, I thank you for this
24 opportunity to appear and to present these concerns
25



1
2 to you.

3 THE CHAIRMAN: Thank you, Dr. Page, for
4 so appearing. In so far as your prospective application
5 for funding in the program that the Commission is setting
6 up, we will look forward to receiving this presumably
7 in the near future.

8 Perhaps on that point, George McCague is
9 chairing our task group in this connection. I wonder
10 if you have any comments vis-a-vis timing and that sort
11 of thing George.

12 MR. McCAGUE: Dr. Page, ladies and
13 gentlemen, we are currently receiving applications with
14 respect to funding. This of course is a new venture
15 in the province of Ontario. The Commission has been
16 given direction to use funding or financial help to
17 individuals or interest groups who wish to proceed with
18 research on an issue of particular interest to them.
19 It could be used for research, and in preparation and
20 presentation of briefs.

21 Dr. Page, the budget has not been
22 established for this as yet. We do not know how many
23 applications we will receive but I can assure you it
24 is going to be a big help to individuals and interest
25 groups.

There is a paper in your kit which sets
out the guidelines and the criteria and again I would



1
2 like to say that we think that people like yourselves,
3 there are a number of interest groups that have
4 indicated that they are going to apply for funding and
5 I am sure, Arthur, that many of these groups will be
6 researching projects that the Commission itself would
7 otherwise have to research and probably it will be
8 done with a little different approach by the interest
9 groups themselves.

10 THE CHAIRMAN: And hence the importance
11 of some urgency in this connection of course.

12 MR. COSTELLO: The only comment I have
13 is that natural gas is a fuel. I know in Alberta they
14 look at it as a feed stock for a chemical industry
15 which they expect to have out there and they are
16 building up their interest structure for that right
17 now.

18 DR. PAGE: For petrol chemicals,
19 certainly; but where I was referring to cutting
20 out was such as Hearn or any future use of natural gas
21 for a feed stock, yes, very inefficient.

22 DR. STEVENSON: I just have a couple of
23 comments, Dr. Page, first on numbers first of all.
24 You might like to know that the 29.7% projected rate
25 increase is now much more likely to be 22% at the
wholesale level. It was debated today in the
Legislature and I won't know until I see my Globe



1
2 tomorrow what happened.

3 DR. PAGE: You and I both, I might add.

4 DR. STEVENSON: And the further good
5 news is I guess that you and I as residential customers
6 would not pay the 22% wholesale increase. In Kingston
7 yesterday we were advised this was translated into
8 17% rate increase for the citizens of Kingston. I don't
9 know what Mr. Powell has in mind for you here tonight,
10 ladies and gentlemen, but it will be less than 22%,
11 I am sure.

12 The next "25% of our disposable income
13 is used for energy directly or indirectly". That is
14 a much higher figure than I have seen and I would be
15 happy to have you explain where you got it.

16 DR. PAGE: Yes, with some connection
17 with some work which was done before the National
18 Energy Board about nine months ago. As probably
19 everyone here is aware the difficulty here is not
20 in connection with this term "directly" but the
21 question of "indirectly". And how you measure that
22 and what is included in this.

23 For your benefit, Dr. Stevenson, I will
24 go back and try to trace down my source on that. That
25 has been used, I might add, two or three times before
the NEB. In one instance it was used in connection
with a line of cross-examination that I was involved



1
2 with and an economist from Imperial Oil was also
3 involved with. If that is very far out of what they
4 like to call the ballpark then I would be very
5 surprised if he had not objected to it but I will try
6 and track down the actual source for you. I am sure
7 it is the definition here that may be the answer to
8 what we are looking at.

9 DR. STEVENSON: Your concern about the
10 capital requirements for the electric power sector
11 of course is a very, very real problem in this province.
12 Just a couple of weeks ago before the Select Committee
13 of the Legislature that I referred to, the Treasurer,
14 the Hon. Darcy McKeough, was talking about possibly
15 curtailing Ontario Hydro's borrowings in 1976 by as
16 much as \$300 or \$400 million and for the reasons that
17 you mentioned. The province simply insists it has
18 some borrowing capacity for hospitals, schools, for
19 highways and other things besides electric power.

20 DR. PAGE: My real concern here is
21 that you, sir, and Imperial Oil, for instance, will
22 still probably be able to borrow. What I am concerned
23 about is the small businessman in Peterborough, as
24 these interest rates go up or if we have a real
25 tightening of credit which could result from - and I
am not talking about Hydro alone here but the James
Bay and Mackenzie Valley Pipeline and all these sort



1
2 of put together in a package for the next ten years.

3 DR. STEVENSON: We have talked about
4 national grids in other cities. You raised the point
5 that because of the time zone differential an east-west
6 grid makes sense. It is an equally good argument,
7 though, that because of the summer-winter differences
8 in peak a north-south grid makes sense. We could sell
9 our summer surpluses to cities like Chicago and New
10 York and Buffalo and so on where they face summer peaks
11 and they can sell us power back in the winter.
12 Theoretically that works except the Americans never
13 have any surplus power to sell back.

13 There is no doubt that the province
14 has put a high priority on the purchase of power from
15 the neighbouring provinces and the review of the
16 prospects for a stronger Canadian grid and we will be
17 looking at that as well.

17 Thank you for a very interesting
18 submission.

19 THE CHAIRMAN: Dr. Page, I am rather
20 interested in hearing your reference to Mr. Justice
21 Berger. You will be interested to know that I had
22 about a two and a half hour session with him only two
23 or three weeks ago to discuss the whole problem of
24 public participation in particular and we found
25 ourselves seeing very much eye to eye on this question.



1
2 We are most grateful to you and we will
3 look forward to having your application for research
4 funding in connection with the Commission's work.
5 Thank you very much.

6 SUBMISSION BY MRS. M. CURRELly.

7 MRS. CURRELly: I would just like to say
8 that I represent the Northumberland Federation of
9 Agriculture and I am also representing myself.

10 I made my papers specifically very brief
11 because I am sure you have heard all about agriculture
12 and the implications of Hydro on agriculture and farm
13 land going out of production and all the rest of it,
14 from the Ministry of Agriculture and Ministry of the
15 Environment and from various farm groups that have
16 come and spoken to you, so I will just read my very
17 short paper and that will be it.

18 We are at present farming 125 acres of
19 our own land on the 5th Concession of Polk Township
20 and also 50 acres of rented land nearby.

21 As you know from our previous letters
22 to you, Hydro is hoping to bisect our farm with their
23 500 kV Lennox to Oshawa line. We feel that having had
24 a very great deal of contact with Hydro concerning the
25 placement of this line we would like to be involved in
the decision making concerning placement of subsequent
Hydro lines.



1
2
3 It is our belief that agricultural land
4 is becoming more scarce and more expensive. Farming
5 is not an easy profession even if all external factors
6 such as land availability are in our favour and it
7 becomes increasingly more difficult when land is
8 severed by public utilities.

9 The Ontario public must be made aware
10 with the increasing disappearance of good agricultural
11 land, food will not only increase in price it will
12 also become scarce. This situation is understood by
13 all conscientious farmers such as those belonging to the
14 Ontario Federation of Agriculture. They feel that
15 farm land is too valuable a commodity, shared by all
16 Ontario citizens, to be abused the way it is currently
17 being abused. Naturally, we need a government policy
18 restricting infringements upon agricultural land but
19 this seems to be extremely slow in coming.

20 Therefore it is up to concerned citizens
21 such as your group and our group to come together and
22 make intelligent use of our resources. We propose that
23 Hydro lines should, where possible, be placed along
24 publicly owned or Crown land and farm land should be
25 avoided as much as possible.

If, however, Hydro lines must absolutely
cross farm land then the Hydro Commission should,
regardless of cost to them, place the lines where the



1
2 individual farmer feels that it would be easiest for
3 him to farm around it.

4 Thank you.

5 THE CHAIRMAN: Thank you very much,
6 Mrs. Currelly. As you mentioned at the beginning we
7 certainly have heard about this problem before but I
8 can also assure you that we have not heard it expressed
9 more attractively than you have just expressed it.
10 We are very grateful to you for doing such a nice job.

11 Maybe your former colleague, George
12 McCague, might like to comment.

13 MR. McCAGUE: We are indeed very
14 pleased, Mrs. Currelly, to hear from the
15 Northumberland Federation of Agriculture. You have
16 an active group in the county, I know, and we have
17 received submissions from a large number of Federation
18 groups as well as the Farmers Union, the Christian
19 Farmers and many, many interest groups.

20 It pleases us to hear that many of you
21 are working together in connection with a research
22 project. There is an application pending for funding
23 with respect to certain issues that you would like
24 gone into, and I must say, talking with you earlier
25 in the meeting, you said you had a very short brief,
you have covered the salient subjects very completely
and in a very effective way.



1
2 We appreciate your interest and will
3 no doubt be hearing from you through the Ontario
4 Federation or other farm groups when the formal hearings
5 occur.

6 MRS. CURRELly: Most definitely.

7 MME. PLOURDE-GAGNON: You live on a farm?

8 MR. CURRELly: Yes.

9 DR. STEVENSON: Mrs. Currelly, do you
10 feel in your dealings with Ontario Hydro that you were
11 treated fairly. Do you have any observations or
12 suggestions to make to the Commission about Hydro's
participation?

13 MRS. CURRELly: I am very biased on
14 this point, obviously, but I feel that perhaps public
15 relations could have been a little better. They seem
16 to be rather pig-headed, if I can use that term.

17 I don't want to bring up our specific
18 case but that is the only reference point I can use.
19 We are saying, O.K., obviously you can't shove Hydro
20 lines on to somebody else's property; if you are going
21 to put a line through you are going to put a line
22 through; but we are saying let's do it so we can
23 continue making a living farming and at present the
24 way they are talking about doing it it makes farming
25 become unfeasible. We have had several meetings with
them and several meetings with different Ministries



1
2 and, no, they don't seem to be terribly interested in
3 our particular case, no.

4 DR. STEVENSON: You of course are
5 operating under the new rules that Hydro is following
6 in terms of its acquisition of land for corridors in
7 which you have the right to sell land in total or
8 give Hydro an easement or indeed if you can show that
9 your farm will be uneconomic because of the acquisition,
10 to sell them the whole farm.

11 Do you think that the availability of
12 these options is of any particular value?

13 MRS. CURRELLY: Not in this particular
14 case because essentially what they are doing is going
15 straight through dead centre of our farm which divides
16 our farm in half and we would never consider selling
17 the farm even if it became impossible to produce a
18 living from it because it has been in my husband's
19 family for 140 years and it would be unthinkable to
20 even suggest that.

21 DR. STEVENSON: How about tower
22 placement?

23 MRS. CURRELLY: Well, we have asked
24 instead of going through the centre of the farm they
25 move it to the back of the farm which then, if they
must put four corridors which they are now talking
at least it means it is not going to interrupt the



1
2
3 ability to turn machinery and the ability of planting
4 crops directly beneath. We have also asked them if
5 it is feasible to put up concrete poles rather than
6 pylons because the pylons take so much acreage but
7 we have not gone into that very far. We don't know
8 what kind of foundation or base they are going to
9 have to use for that.

10 DR. ROSEHART: Has your land been
11 expropriated?

12 MRS. CURRELLY: No, we have granted
13 an easement at this point.

14 THE CHAIRMAN: Thank you very much,
15 Mrs. Currelly.

16 A Mrs. Pat Lawson is next on our list.
17 Mrs. Lawson.

take3 18 SUBMISSION BY MRS. PAT LAWSON.

19 MRS. LAWSON: Since I did my research
20 for this paper six months ago I hope you will excuse
21 me if some of my statistics are a little off. The
22 picture changes very rapidly.

23 Mr. Chairman and Commissioners, in
24 another 20 years (if Hydro's present plans proceed)
25 the Lake Ontario shoreline, where I live will look
like a moonscape - human communities struggling to
maintain some semblance of natural life midst massive
generating stations and hydro towers. This may not



1
2 seem such an exaggeration if you go to sail in Lake
3 Ontario and sail from Toronto to Kingston you will
4 I think have very much the same impression, as I am
5 painting for all of you, in another 20 years.
6 Wesleyville, which lies three miles to the west of
7 the town; and Darlington, Bowmanville generating
8 station, a suggested location east of Cobourg, Lennox,
9 the Lennox to Oshawa line, these are immediate
10 concerns.

11 Since I am as a citizen of this province
12 in effect a Hydro shareholder, I welcome this
13 opportunity to question Hydro's policy of expansion.
14 Hydro's growth, 7% per year increase in demand -
15 as the first gentleman who spoke quoted 4½% per year
16 per person increase results in a what I call a self-
17 fulfilling prophecy. As a publicly owned utility,
18 Hydro has an area of responsibility to the citizens
19 of Ontario beyond demand, supply and profits.

20 It has been clearly documented in recent
21 scientific works ("The Limits to Growth" - Meadows
22 et al, "This One Small Planet" - Ward and Dubois,
23 "Exploring Energy Choices" - David Freeman) that this
24 policy of encouraging growth and consumption of
25 resources is no longer in the best interests of our
people and is untenable within a global context.
Global growth on the scale proposed here today by



1
2 Hydro is suicidal for future generations. I speak as
3 the mother of four children.

4 Hydro's policy definitely encourages
5 consumption both on the individual level and
6 industrial and commercial - more consumption in a
7 part of our world that already overconsumes. I am
8 sure you know all of the statistics. North Americans
9 (7% of the world's population) use up half of the
10 world's resources. The 2/3rds of our world living
11 in conditions of poverty, illiteracy and near
12 starvation will not long allow this situation to
continue.

13 I watched a couple of nights ago a
14 television program. It was an interview with an
15 Australian scientist speaking at the recent meeting
16 of the World Council of Scientists in which he said
17 that if the developing nations start to use oil and
18 gas at the rate that we in the western industrialized
19 nations are using it, he foresaw that the world's
20 resources would last 4 years. I fear for my children
21 who will be forced to contend with the world-wide
22 holocaust promoted by our society and in which, I am
sorry to say, Hydro is playing a leading role.

23 As to my belief that Hydro's self-
24 fulfilling policy of 7% growth per year is no longer
25 in the best interests of our people I would like to



1
2 mention a few reasons for an immediate need to change
3 from a policy of Consumption to one of Conservation,
4 in other words long term planning in resource and
5 energy conservation.

6 Providing the vast quantities of energy
7 required meet the 7% annual growth predictions into
8 the 21st century will strain existing technology and
9 known resources to the utmost. New technologies like
10 nuclear fusion that the first gentleman who spoke
11 seemed to be relying upon may be developed in time
12 but they are by no means certain and could prove
13 less feasible and more polluting. I just handed a
14 copy of the Port Hope Evening Guide to one of the
15 Commissioners. We are presently experiencing a great
16 deal of trouble, that is a really a minor way of
17 putting it, with rubble that is being used for fill
18 in areas in the town where now ray dawn is being
19 emitted and people's children and people's lives -
20 their health is being questioned because of this. We
21 have, as you probably know, Eldorado nuclear refining
22 in our town.

23 We have not yet discovered a satisfactory
24 way of handling spent fuel rods nor attacking radio-
25 active waste nor do we yet know how to safely dismantle
a nuclear generating station.

Also as the proliferation of nuclear



1
2 plants proceeds the threat of nuclear theft by
3 political extremists becomes more real. Only with long
4 term planning for energy conservation could we hope to
5 curtail nuclear power growth.

6 Secondly, even if new technologies are
7 developed the earth has a finite capacity for absorbing
8 environmental insults; a continued growth in the
9 burning of fossil fuels for the next 30 years means
10 increasing build up of carbon dioxide and particle
11 matter in the atmosphere. Most of you have probably
12 read of the conference recently on climatology in
13 Toronto. Many eminent scientists are beginning to
14 call it a serious question, what we are doing to the
atmosphere surrounding our earth.

15 Thirdly, a policy of conservation will
16 save money. The Wesleyville plant alone is to cost
17 \$600 million, probably escalated since I wrote this.
18 This does not take into account the cost of pollution
19 and the social dislocation of Hydro's expansion. As
20 an example, it is possible that Hydro, concerned with
21 air pollution, has come to locate in Port Hope's pure
22 air, thereby happily reducing the quality of our air
23 while still adhering to provincial standards. It is
24 expected that residual oil from the Carribean will be
25 used in this plant. It has a high sulphur content,
2% to 2½%. At present Hydro is not required to limit



1
2 the sulphur content of the fuel it uses and there is
3 no limitation on the operation of the station due to
4 air pollution index regulation. There is a need for
5 government monitoring here, and I quote from the Hydro
6 report on the Wesleyville Station "although air
7 quality in the area will be reduced by the proposed
8 station..." etc.

9 Fourthly, the social consequences of
10 new Hydro projects are very real to the people of the
11 Lakeshore-Port Hope who value their winding country
12 road and their peaceful and pure countryside. With
13 a policy of zero energy growth effective public
14 involvement and important energy policies could be
15 achieved. Rapidly growing technology as promoted by
16 growth is beyond the individual's control.

17 Fifthly, a policy of conservation would
18 also offset the need for involving massive investments
19 of foreign capital, and quite a good deal has been
20 said about this tonight. This is an area that I am
21 not expert in. The last gentleman who spoke made
22 some telling comments.

23 Sixthly, we will have to limit our
24 resources if the Poor Nations of our world are to
25 achieve a decent standard of living. Only by so doing
can we hope to lessen world tensions.

Now I will just very briefly finish what



1
2 I feel are possible ways Hydro could act in the area
3 of conservation.

4 Hydro states explicitly in "Proposed
5 Generating Station for Wesleyville" and I quote:

6 "Barring a major catastrophe or economic
7 depression the need (for 7% growth per
8 year) can only be reduced through the
9 voluntary action of our customers."

10 If Hydro wishes its customers to make a
11 choice they must be given the facts - capital costs,
12 which they pay for as citizens of this province; limited
13 resources; global limitations; costs of pollution; etc.
14 The expansion of industry and commerce must be
15 regulated by government and Hydro within these
16 constraints. The present day customer faced with
17 endless electrical gadgets and new labour-saving
18 devices has little chance of understanding the total
19 impact of his style of living.

20 From my own experience I can tell you
21 that our family had to buy a new refrigerator. It took
22 us three months to buy a manual defrost refrigerator
23 and it was only after considerable research, because
24 we were environmentally interested in the beginning
25 that we found out that the automatic defrost uses six
times the energy of the manual defrost.

Now, I propose, Mr. Chairman, that these



1
2 facts have got to be made public. I should like to
3 point out four areas in which Hydro could help to
4 educate the public and at the same time immediately
5 reduce the demand for energy.

6 1. Hydro could insist on the labelling of cars,
7 homes, appliances to tell the energy use and operation
8 costs. And the public should understand the long term
9 fuel costs for running the item, i.e., how much energy
10 does one dryer load use? Then perhaps more people will
11 go to the solar-wind method of Dr. Carter even if it
12 means freezing fingers. This should be mandatory in
13 the same way as prepared foods are required to show
14 their contents and I really do believe, Mr. Chairman,
15 that the average consumer is becoming a little wiser
16 nowadays.

17 2. Modern technology must take into account
18 energy costs for example over-packaging must be
19 eliminated. Why have we had to wait three years to
20 ban the throw-away container? It is incredible. You
21 know, the person who is trying to do something
22 themselves just feels, what is the use, if they are
23 going to freeze their fingers and hang their washing
24 out and we are still using those dogone cans and bottles
25 that require so much more energy than the refillable
ones. It doesn't make sense.

3. We need measures to avoid waste, i.e.,



1
2 regulations to insure proper insulation; the encourage-
3 ment of public transport. We need to emphasize
4 durability not disposability.

5 4. This is an area I am not expert in that taxes
6 and subsidies re. conservation measures are needed.
7 At present these favour the use of new metals over
8 recycled metals. We need to remove subsidies for
9 less energy efficient transportation systems and
10 support mass urban transit and intercity railways. At
11 present highways and air transport receive the most
12 government support. Here again, you know, it makes you
almost give up trying to do something yourself.

13 5. As an influential corporation planning for the
14 future Hydro must understand the value changes taking
15 place in our society and reappraise its goals. There
16 has to be a reconciliation of economics and ecology.
17 People are beginning to realise that some of the values
18 they cherish most are destroyed by North Americans on
19 growth and "a higher standard of living.". The society
20 of the future, if we survive to effect the change, will
21 be one that encourages growth in education and in the
22 arts, growth in human relationships and growth in
23 global responsibilities as opposed to economic and
24 population growth.

25 This society may come about naturally,
if time allows, in response to high prices caused by



1
2 scarcity in environmental limitations. It could
3 also be a feature of the transition to a "post
4 industrial society" for the emphasis is on services
5 rather than goods production.

6 THE CHAIRMAN: Thank you very much
7 indeed, Mrs. Lawson, for that very eloquent plea for
8 more emphasis on conservation and for providing us
9 with some of the ways whereby that may be facilitated.
10 The thought that perhaps appliance manufacturers should
11 put on each of their appliances the energy actually
12 consumed by these appliances, these are the sorts of
13 things that hopefully would begin to make people more
conscious of the need for conservation.

14 Your plea too for the quality of life
15 predicated on the goals that you have stated here which
16 remind me in some way of the goals which were stated
17 at the Stockholm Environmental Conference in 1972, I
18 think we are grateful to you for setting them out in
such a succinct and very articulate way.

19 I am sure my colleagues would like to
20 perhaps question you or seek your views on issues
21 related to some of the points you have brought up.
22 I think Solange, for instance, is rather anxious to
23 ask something.

24 MME. PLOURDE-GAGNON: I don't know if
25 you are working outside the home?



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MRS. LAWSON: No, I don't.

MME. PLOURDE-GAGNON: But do you think the housewife who is working outside shares the same opinion about the energy conservation, that the woman is staying home. Do you think they can share the same opinion. You know why, because when you work outside it is always urgent, rush, rush, and sometimes we use more energy and electrical appliances than you would. What is your opinion about that?

MRS. LAWSON: I can only relate to my friends. I have three friends who work full time but there probably I relate to people who are like-minded and they are concerned about the same issues and try to do the same kinds of things that I do. But I understand your point. It is because they have the energy saving devices that they can work outside the home perhaps.

MME. PLOURDE-GAGNON: The woman who works outside the home has a very different life. Thus she has to do all the cleaning in the evening, and many people make a suggestion about that, why don't we wash in the evening instead of sometime in the morning, but I guess a big part of the women population work right now.

MRS. LAWSON: That is really a very small way to save energy. It is important to focus on her



1
2 but it is these bigger areas such as the taxes and
3 tariffs and so on that I would like to see the
4 government doing something about.

5 DR. STEVENSON: Could I ask you this?
6 Port Hope is in an almost unique position in this
7 province. You are going to be bracketed by two
8 enormous power generating stations, I think on each
9 side of town, are they not?

10 MRS. LAWSON: No, they both lie to the
11 west of the town. If one goes to the east of Colborne
12 that will be the other side.

13 DR. STEVENSON: It is just a spot on the
14 map so it is impossible to be precise. In any event,
15 you are very close to large stations that are likely
16 now to be developed. Is there another position in
17 Port Hope than the one you have given us tonight?
18 Are there other people who would like the jobs, the
19 permanent employment, the high wages that large power
20 stations provide.

21 MRS. LAWSON: Why do you have to locate
22 all the power stations on Lake Ontario? The lake is
23 already overburdened and after all it is one of the
24 finest places to live, beside a large body of water.

25 Surely technology has reached the point
where you can locate a station away from Lake Ontario
up in the northern part of the Province for instance.



1
2 DR. STEVENSON: Yes, you can. We had
3 a professor at Queen's talk about dry-cooling towers,
4 for example, which at a high cost means that a station
5 can be independent of large bodies of water.

6 We have had others say, put them in the
7 Laurentian Shield, along Lake Superior and suffer the
8 cost of moving the electricity south. In the long
9 run, it would be better for us all, in that it will
10 preserve valuable farm land and the amenities of the
11 shoreline of the places like Port Hope.

12 So it can be done. The answer is always
13 one of trade-off. I am just trying to establish the
14 trade-offs in your view. We can let the Chamber of
15 Commerce speak for itself down there.

16 MRS. LAWSON: We have no say. They just
17 came and that was it. There were some public hearings
18 and I attended one of them and they were a bit of a
19 mockery, really. You could say your bit but that was
20 it. Hydro was there and Hydro has a lot of expertise
21 at its disposal.

22 DR. STEVENSON: I think things have
23 changed a bit with Hydro. The publication of this map,
24 you see, is quite unique. They have put these red
25 hatch marks where they think they might like to build
stations in the future and they did not used to do
this. Anyone who is concerned about these things now



1
2 has an idea as to what Hydro's present plans consist
3 of and can get an input into it earlier than the
4 people in Port Hope, the first time they heard about
5 Wesleyville.

6 MRS. LAWSON: Well, we were fighting
7 garbage in Port Hope. You people from Toronto were
8 sending us all your garbage. We had limited resources
9 to fight, so then Hydro just snuck in the back door.
10 It was difficult for Port Hope to fight garbage and
Hydro at the same time.

11 DR. ROSEHART: Just one reflection, and
12 it is not a question, but the Commission heard certain
13 opinions when it was visiting northern Ontario and I
14 am somewhat surprised, there was a sentence in your
15 submission you did not read but being only 40 or 50
16 miles from Toronto I find it somewhat surprising and
17 a quote from your submission "experts in remote
bureaucracies determine our lives".

18 This is a comment which we have heard
19 before but again I find it interesting.

20 MRS. LAWSON: Were you questioning that?

21 DR. ROSEHART: No, I just wanted to
22 point it out to the public. You did not read it.

23 MRS. LAWSON: I feel that very strongly
24 because, you know, we are a very small town, 9,000,
25 and just two years ago I think it was we were told that



1
2 we were going to be plumped into a regional government
3 that would be centred more or less in Oshawa; and Port
4 Hope people don't relate to Oshawa. We are an old,
5 agricultural small town community.

6 Then we were told we would have
7 Wesleyville and garbage, 30 box cars a day of garbage
8 from Toronto; then we were going to have this
9 Wesleyville Power station and everybody thinks, once
10 we have this massive thing on top of us that there will
11 be industry follow on its heels like Lennox. Lennox
12 is a waste land and we have a beautiful town. I have
13 lived there my whole life and I hope I don't have to
14 move. I would like my children to inherit the same
15 kind of town. But it was not our choosing to have
16 any of these things. It was the remote bureaucracies,
17 and it is very difficult.

18 I am a housewife, and it has taken -
19 I can't tell you how much of my time it has taken and
20 expense and trouble to prepare this thing for tonight,
21 and all the other things I have had to do. I might
22 as well have had a part-time job and earned some
23 money for the family.

24 THE CHAIRMAN: I can assure you that
25 we appreciate it, Mrs. Lawson. As I mentioned
previously, this is what public participation is in
aid of and I hope you continue with your efforts and,



1
2 as I say, thank you very much.

3 Mr. Moynes.

4 SUBMISSION BY MR. J. H. EARL MOYNES.

5 MR. MOYNES: Mr. Chairman and members
6 of the Commission. I appreciate the opportunity to
7 speak to you tonight on behalf of myself and the
8 Lindsay Hydro Electric Commission. I understand that
9 under your terms of reference you are to examine the
10 long-range electric power concepts of Ontario Hydro
11 for the period 1933-93 and beyond.

12 We are concerned with the scheduled
13 230 kV line to supply the Lindsay-Fenelon Falls area.
14 It will be noted that this project has at present an
15 in-service date of 1977 and, therefore, does not come
16 within your scope. However, I would like to mention
17 that this additional capacity has been on the books
18 for a number of years with stop-gap measures being
19 introduced by adding two new 44 kV circuits from
20 Beaverton to the previous two 44 kV circuits from
21 Peterborough. While providing for our immediate power
22 needs the possibility of interruptions to service
23 increased due to the extra circuit miles involved
24 and, therefore, being more vulnerable to outages for
25 various reasons.

Manual switching is required to
sectionalize and accommodate load transfers with



1
2 special precautions being necessary to control
3 excessive transfer currents between the two 230 kV
4 sources at Peterborough and Beaverton via the 44 kV
5 interconnections.

6 It is our understanding that the proposed
7 in-service date of 1977 cannot be met as the decision
8 on where the line is to be built has not been made as
9 yet, and, therefore, the actual construction will be
10 delayed accordingly.

11 The public demand for service and
12 expansion of facilities is beyond the control of
13 any local utility; i.e., conversion to electric heat
14 - new homes, apartments, shopping centres or new
15 industry.

16 Social safety is dependent on reliable
17 electric service; i.e., street lighting, traffic
18 control, elevators, smoke warning devices, hospitals
19 etc.

20 We appreciate the opportunity of sharing
21 with you some of our concerns when delays in the
22 implementation of plans for future growth occur.

23 Thank you very much.

24 THE CHAIRMAN: Thank you very much, Mr.
25 Moynes.

Could you give us a rough idea of the
increase in demand perhaps in Lindsay over the past



1
2
3 ten years.

4 MR. MOYNES: I have it for the last nine
5 years and we vary, I will agree with the lad who
6 mentioned there about -1% to +13 to 14%. I believe
7 14% was our highest. The average I believe was between
8 5% and 6%.

9 THE CHAIRMAN: Do you see any character-
10 istic trends in the utilization of electric power, for,
11 say, space heating, any pattern that is emerging?

12 MR. MOYNES: We have three new apartment
13 buildings going up in the town of Lindsay right now and
14 all of them are going in electric - all electric heat.

15 We have no control over this type of
16 load requirement. When they come in and demand service
17 we are expected to provide it.

18 THE CHAIRMAN: Are they bulk-metered?

19 MR. MOYNES: Yes.

20 DR. STEVENSON: I have got a problem
21 with your concern about the line to supply the Lindsay-
22 Fenelon Falls area, Mr. Moynes, (a) I don't know
23 anything about the issue (b) as you say it is one of
24 the earlier matters that Hydro will deal with but I
25 think what you are doing is telling us that it is
perhaps a kind of issue that a utility like yours
faces, concerned with supply reliability to your
customers, and I guess the question I would ask is



1
2 are the problems you are having with Hydro vis a vis
3 this line typical. Have you a general concern with
4 planning lead time?

5 MR. MOYNES: My reason for bringing it
6 up tonight is that we have been working on this now I
7 believe, it has been on the planning board I believe
8 now since about 1969 or 1970. It has been in the
9 future and it has always been moved into the future.
side2 10 We have two lines coming from Peterborough,
11 automatically closing and so on, which gives us
12 pretty good reliable service. Now we have got four
13 lines to cover two from Peterborough, two from
14 Beaverton, and all the interconnections. We are
15 vulnerable. We have just proved we are losing - we
16 are not having any more interruptions but they are
17 longer, the ones that we do have, because of the
18 requirement to transfer load.

19 DR. STEVENSON: Any single reason why
20 the new 230 kV lines have been delayed? Can you put
21 your finger on the reason?

22 MR. MOYNES: My understanding was that
23 the line was to be laid out as of last January and I
24 have correspondence and no doubt you people could
25 look into some of the correspondence. There is no need
for me to get into this.

THE CHAIRMAN: This is beyond our terms



1
2 of reference.

3 MR. MOYNES: The point that I would like
4 to make tonight is that if the delays keep coming it
5 will be within your terms of reference.

6 THE CHAIRMAN: Thank you very much, Mr.
7 Moynes.

8 At one stage up here we were at a very
9 high temperature but now it seems to be dropping
10 rapidly. However, I think Dr. Ruth Titcombe.

11 SUBMISSION BY DR. RUTH TITCOMBE.

12 DR. RUTH TITCOMBE: Dr. Porter and
13 Commissioners, thank you very much for the opportunity
14 of speaking with you and most of my material has
15 probably been stolen by the previous speakers, so I
16 will try to be very brief. I am a housewife as well
17 as a physician.

18 May I ask, Mr. Commissioner, Mrs.
19 Currelly a question? Is it all right? Has the Ontario
20 Government already passed judgement on the Lennox to
21 Oshawa line? Is this definitely going through?

22 MRS. CURRELly: A month ago I was at the
23 Federation of Agriculture conference in Hamilton and
24 I asked Mr. Timbrell and he said it would be within a
25 month; and that was a month ago; so we expect to hear
very shortly.

DR. TITCOMBE: Perhaps one of the



1
2 Commissioners could corroborate that.

3 THE CHAIRMAN: Again of course this
4 doesn't come within our terms of reference and we just
5 have not been keeping in touch with developments of
6 this kind especially when during the last eight weeks
7 we have been on the road.

8 DR. TITCOMBE: I am suggesting that this
9 possibly should be within your terms of reference
10 because I am thinking that the Hydro's projected plans
11 should be delayed until the 1980 period because of
12 having attended the Solandt Commission hearings, it
13 was not demonstrated to me this line was needed at the
14 present time because ^{Hydro} was basing their projected needs
15 on past demand. If we are being realistic we have to
16 face the fact that we cannot go on wasting energy when
17 we are very rapidly running out of fossil fuel. It
18 seems to me that we should not try to project ourselves
19 very quickly into the nuclear age because what are we
20 going to do with the disposable wastes that take
21 24,000 years to get rid of?

22 These seem to me concerns that are
23 beyond the every day, whether or not we have the
24 electrical shaver or electric toothbrush, and I really
25 would like to see perhaps more government intervention
in advertising because it seems to me that even our
Peterborough Public Utilities and our Canadian General



1
2 Electric create artificial needs for us. Our children
3 watch television and tell us we must have this because
4 the neighbours have it and if we don't have it we are
5 not very important people.

6 I am just making a plea for a complete
7 change in our lifestyle. I did prepare some
8 manuscript; some of it may be relevant, but I will
9 read part of it.

10 The proposed extension of Ontario Hydro
11 is a multi-billion dollar operation and it will make
12 Ontario Hydro the largest electrical distributor in the
13 world. It makes me wonder whether if we believe that
14 small is beautiful should we allow this kind of
15 monopoly in the electrical field?

16 Also, I am concerned that in order to
17 finance this kind of undertaking Ontario Hydro has to
18 borrow very heavily in the foreign field making Canada
19 very much dependent on outside help and I wonder
20 whether we should compromise our future in this way.

21 Another thing that concerns me is that
22 already Ontario Hydro has some 17,000 miles of Hydro
23 lines and I don't know whether you urban people
24 appreciate the visual pollution of Hydro lines.
25 Perhaps the wooden poles sort of blended into the
background because they were not painted and they
became weathered but the 500 kV lines, are to my



1
2 mind, monstrosities and the sooner that we prevent
3 the erection of these the better I will feel because
4 I anticipate a future of highways and hydro towers.

5 An area that particularly concerns me
6 is the Lennox to Oshawa line because as I say I feel
7 that the need of it has not been well demonstrated.
8 At the hearings the contention was made that Quebec
9 Hydro's contract with Ontario was going to terminate
10 in 1977 and for this reason power had to be generated
11 from Lennox to supply Ottawa. But it seems to me that
12 Quebec Hydro instead of exporting their energy to the
13 States could very easily from their mammoth James Bay
14 project send some over to Ottawa and some inter-
provincial cooperation would be in order.

15 Another point I wanted to make was the
16 fact that the Gatineau corridor is already in
17 existence and could supply the Toronto area with a
18 little upgrading providing of course that we can keep
19 our energy demands static. In order to do this, this
would require very intensive education of the public.

20 As regards the projected Lennox to
21 Oshawa line perhaps some of you may not know that
22 Ontario Hydro commissioned a multi-disciplined group
23 called Commonwealth Associates who, using a
24 computerized methodology arrived at the alignment and
25 this methodology involved arbitrary weighting of



Titcombe

1
2 scientific, social and environmental concerns but the
3 agricultural concern was not considered because there
4 were no agrologists apparently in this 70 man and
5 woman company.

6 Also, the public was said to have
7 participated in the selection of the routing that the
8 attendance at the meetings was pitifully small and a
9 preference ballot mailing brought only a 5% response.
10 Apparently when they selected this route they
11 considered the public had participated in the selection.

12 The Ontario Ministry of Agriculture and
13 Food recommended that Hydro avoid prime food producing
14 land and suggested that the line should go north over
15 the province, over less arable areas, and this view to
16 my mind seems valid as world food reserves decrease
17 and there is a threat of mass starvation.

18 But also what concerns me is the fact
19 that towns and cities on the shores of Lake Ontario
20 are continuing to expand and as Mrs. Lawson pointed
21 out with the generating station there more industry
22 probably will be attracted to the area and this will
23 mean more roads. If the presence of powers would
24 guarantee that there would be no development this
25 would be a good thing, but this is not what happens
apparently. For this reason, we need more strong
government control.



1
2
3 Now, what can we do to save our land
4 from devastation? The public must become aware of the
5 over-all cost to the environment of the generation and
6 transmission of electricity. What really worries me
7 is the fact that Ontario Hydro talks only in terms of
8 cost in a monetary way and they don't measure the
9 intangible, you know, the cost to the environment in
10 the way of visual and environmental pollution.

11 The prevailing myth that economic growth
12 is dependent on energy consumption, because of this,
13 Hydro has been proud of its record of providing cheap
14 power to its consumers. Indeed, the consumer has been
15 encouraged to over-use with preferential rates for
16 bulk users. I feel that we should all be educated
17 that our energy needs should remain static or even
18 become reduced and the idea of having every electrical
19 appliance measured, having the amount of energy
20 consumed stated on it would be very helpful. For
21 example, it seems to me the colour television uses
22 four times the amount of the black and white. Is this
23 not true? Many people are not aware of this.

24 Such a programme of conservation is
25 relevant to the diminishing reserves of oil and the
high cost. It is estimated that the annual oil bill
to fire Hydro's present generators, this doesn't count
their projected, will be 50 million dollars a year



1
2 and I know that this will not be a popular suggestion
3 but it seems to me that the consumer should be made
4 to pay for the true cost of electricity and that Hydro
5 should discontinue its practice of selling electricity
6 cheap.

7 Also, as Pat Lawson said, it doesn't
8 seem fair that 6% of the world should be using some-
9 thing like 50% of the world's resources. For example,
10 air-conditioners that the Americans use, just the
11 energy to operate air-conditioners takes up as much
12 energy as the whole of India.

13 At the same time that we are trying to
14 conserve, research should be accelerated to find more
15 acceptable methods of generating and transmitting
16 electrical power.

17 I wonder if we could do anything to
18 harness solar energy? It would appear that our society
19 is conducting its course for its own present benefit
20 with little thought of succeeding generations. There
21 are now four times as many people in the world as there
22 were 100 years ago and this figure could double in 35
23 years.

24 Although electricity and the automobile
25 have added greatly to our comfort and enjoyment they
have brought with them almost insoluble problems. The
car pollutes the atmosphere and takes up space for



1
2 highways, garages and parking lots and it uses the
3 valuable oil that we will soon be needing to heat our
4 houses.

5 Lack of discipline underlies much of the
6 malaise. T. S. Elliot said "this is man, filled with
7 the wonder of his own illusion, bent on self-destruction,
8 the enemy of the world and of himself."

9 An English economist predicted nearly
10 200 years ago that population would outrun man's
11 capacity to produce food. That time is dangerously
12 near. What can we do to help? Disciplined human
13 reproduction is an essential requirement; conservation
14 of energy is another.

15 Governments are ineffectual without the
16 energies of individuals utilized in cooperation to
17 preserve this planet with something of beauty for
18 prosperity. It is the responsibility of the elected
19 representatives to lead us rather than to follow our
20 whims.

21 THE CHAIRMAN: Thank you very much, Dr.
22 Titcombe. I am sure you have given us plenty of food
23 for thought. Perhaps you would like to stay there just
24 for a moment or two.

25 Perhaps on a slightly lighter note, when
you mentioned about the aesthetic sort of qualities of
500 kV towers, I was thinking of a comment by my good



1
2 friend, Marshall McLuhan, when he said that the obsolete
3 technologies often become art forms and he mentions the
4 model-T Ford which in its days was regarded as a
5 monstrosity of the first magnitude and is now of course
6 a treasured antique; and maybe one might think of
7 utensils that at times were used in bedrooms about
8 fifty years ago that are now prominently featured in
9 antique shops.

10 The point is of course that as we know
11 the way art has evolved that it is rather interesting
12 that maybe one day somebody may look at this and say,
13 what a magnificent sort of technology. However, I am
14 not being particularly serious, of course.

15 Some of the points you raised such as
16 the idea of inter-provincial cooperation of course was
17 raised in the throne speech about six weeks ago. This
18 is obviously something that all Canadians must think
19 very seriously about. It certainly falls within the
20 terms of reference, within the mandate of this
21 Commission, to some degree and, hopefully, we may be
22 able to contribute something to that cooperative effort.

23 Your comment too about the modelling
24 that was used in deciding the optimum transmission
25 parts, say in connection with the Oshawa to Lennox
line, your comment that so many factors could not be
really put into a computer model, the more qualitative



1
2 effects where valued judgements are involved, these
3 sorts of situations I think the Commission is well
4 aware of.

5 DR. STEVENSON: You can be sure that
6 with George McCague on this Commission we are not
7 going to overlook the agricultural concern as you say
8 Commonwealth Associates did.

9 On the 500 kV towers, you know, what a
10 pity it must be to the architect that designed what
11 hydro calls improved appearance towers to have them
12 described as monstrosities. I know that the stark
13 white of the ones near London personally bother me.
14 I hope, you know, that we can paint them grey-blue
15 or something and that they will fade into the sky.
16 I don't suppose that is difficult. You don't prefer
the lattice steel towers, the old ones, do you?

17 DR. TITCOMBE: I am just at the stage
18 - no -

19 DR. STEVENSON: You don't want either
20 of them, all right.

21 DR. ROSEHART: Just a comment about the
22 Lennox to Oshawa line, Dr. Solandt and the Solandt
23 Commission have put in a report suggesting an alignment
24 for that line and I believe there is an inter-ministerial
25 task force in the provincial government having one of
these remote bureaucratic debates with respect to those



1
2 submissions at the present time.

3 DR. TITCOMBE: They are, at the present
4 time?

5 DR. ROSEHART: Yes.

6 DR. TITCOMBE: This is very interesting
7 because another criticism that I have of our government
8 is that the representatives who will be deciding on
9 this alignment are not really knowledgeable.

10 DR. ROSEHART: I think at this stage
11 they have been given substantial advice and I think
12 ultimately decisions of this kind really come down to
13 your elected representatives in the end anyway.

14 THE CHAIRMAN: Dr. Titcombe, thank you
15 very much. We have enjoyed your presentation.

16 The last of the submissions is by a Mr.
17 Doug Sadler.

18 SUBMISSION BY MR. DOUG SADLER.

19 MR. SADLER: Members of the Commission
20 and members of the audience. My name is Doug Sadler
21 and I am speaking on my own behalf tonight. What that
22 means exactly is difficult to define. Two years ago
23 I suppose I would have been labelled as a conservationist
24 until that term became meaningless and now I presume I
25 am an environmentalist but that term also is getting
some meanings that don't seem to be quite appropriate;
so I am not quite sure where to put myself, but let



1
2
3 us say I am an interested member of the public.

4 Most of the points if not all of the
5 points that I have in this very short submission have
6 already been made and I think it is important that
7 they be made as many times as may be because if a
8 point is only made once then presumably it is not
9 very important.

10 I hope just to cover the main headings,
11 as it were, of the issues that to me seem to be the
12 important ones that a Commission of this sort might
13 cover.

14 I think it is probably recognized
15 pretty generally that electric power is the basis of
16 the Canadian way of life, whatever that is, and also
17 of a growth-orientated economy. Some of the points
18 that relate to this, for one thing, it is convenient
19 and another thing, it seems to be free of major
20 environmental impact, but that of course, doesn't
21 seem to be so in view of some of the papers that have
22 been presented quite recently. However it is an
23 argument that is used in favour of electric power.

24 Further there are other aspects of
25 this. I would suggest it has high impact particularly
and this in fact means that it has high cost. Some of
these points have been made already, damming and
diverting increasingly major rivers and drainage



1
2 systems in our nation, there is a disruption of
3 established natural and social ecology. This is at
4 present highly helpful to native peoples merely because
5 they happen to live in such remote areas that other
6 Canadians who value our national heritage of wilderness
7 lands and natural riches also adversely affected and
8 this will become more significant as the world
9 continues to "shrink".

10 Secondly as far as costs are concerned
11 there are the emissions of the fossil fuels which are
12 used in producing electricity and also the second-
13 removed impact of open-cut mining for coal which is
14 now an issue although this of course happens elsewhere.
15 Nuclear power seems to be one of the major alternatives
16 today, health hazards which seem to be undetermined as
17 far as I can make out^{and}/I would like to leave it right
18 there. Of course thermal pollution of our waters will
19 increase with impact on a great many things which seem
20 to be at first glance favourable to human life but
21 which may turn out to be rather different.

22 Secondly on the counter-side I would like
23 to suggest that electricity is being wastefully used.
24 Ontario Hydro has been incredibly specious in the way
25 it switched from an advertising campaign that sold
expanded use of electricity and presumably power-
building by the corporation to a campaign based on



1
2 fuel-saving hints. It will be interesting to know
3 how much change of heart went into that.

4 We still it seems have to wait for any
5 massive effort to stem the tide of expansion and the
6 associated mentality which goes with that.

take4
sidel 7 The next point is that it encourages
8 the development and use of consumer items which are
9 intensively promoted. Another part of the economic
10 bind we are in which ties production regardless of
11 the product and its place in our lives with prosperity.
12 This must be questioned and alternatives actively
sought.

13 A lot of people are saying this but I
14 don't see any really full scale look into economic
15 alternatives in our world or in our society
16 particularly by people who count when the decisions
are made.

17 It seems that electric power is still
18 largely based on depleting resources although this
19 is less of a situation than it used to be with the
20 alternative problem of nuclear power.

21 One of the exceptions of electric
22 power, it seems to me, although not necessarily
23 correctly, is that electricity needs to be a large
24 scale institutional enterprise of national or
25 provincial scope and I would question that. I suggest



1
2
3 that the Commission also question it. I would also
4 suggest that electric power is becoming increasingly
5 expensive in real terms and will continue to do so.

6 Lastly, and in this particular section,
7 there is a problem that was touched on by one speaker
8 on our power hungry neighbour to the south in a world
9 of depleting resources and how long we can refuse to
10 share such resources with our neighbour.

11 So I should go on to the next section
12 which is suggesting some alternatives and the whole
13 question of the restriction of consumer growth
14 which has been brought up so many times tonight. An
15 end must be found sooner or later and the question is
16 how soon can it be found and it seems to me as I
17 suggested a moment ago some research and initiative
18 would help this to come about by people who are
19 really concerned.

20 The second point here the question of
21 alternative methods which has been just touched on a
22 few times tonight but not as much as one might expect.
23 It seems that funds are now being squandered on
24 wasteful and expensive projects and they could be
25 made available, or at least some of them, on an all-out
attack on alternative methods of energy production
particularly and including electricity production.
Most finances are now reinforcing the status quo in



1
2 this matter.

3 Thirdly, we should de-emphasize the
4 centralized aspect of electricity production which
5 means energy production. I doubt if it is necessary
6 to the individual householder or certainly to the
7 community level. Such things as the use of solar
8 energy as a home heat adjunct, admittedly this seems
9 to be an expensive method but that is because it is
10 in the early stages of development it seems.

11 The same thing that happened to wind
12 power which is available to everyone on an intermittent
13 basis and could be made use of and there are methods
14 of storing the energy so produced.

15 Better home design and better community
16 design are certainly a part of the conservation
17 practice and most of our buildings today, it seems,
18 are not in fact built with the aim of conserving
19 energy. They are built with lots of other things in
20 mind and we don't need to say what they are, not now.

21 Also the promotion of active conservation
22 practices for energy, which has been touched on many
23 times today.

24 So just to sum up, I have four
25 recommendations. The first one is ways be actively
sought to bypass or curtail the rat race we are all in,
exploiting and consuming our non-renewable and even



1
2 consuming the renewable environment; degrading the
3 true quality of our lives and so on.

4 It is recognized that powerful forces
5 could oppose this but the need and protection of public
6 sympathy may well prove to exist.

7 Secondly, that active research into
8 alternative methods of planning our lives be sought
9 even at the expense of the establishment and that
10 realistically adequate funds be allocated for this.

11 Thirdly, that policy be accepted whereby
12 all available evidence on both sides be announced,
13 digested carefully and published on relevant issues
14 such as the hazards and the advantages of nuclear
15 fuel use for the generation of electricity. There
16 is a lot of scanty information but much of it is
17 technical, much of it is hard to get and it is
18 difficult to observe it. This may well be a function
19 of government or of Hydro to present this material
20 to the public in an accessible form subject of course
21 to the scrutiny and criticism of government experts
22 and also that any decisions that are made by Hydro be
23 published together with their reasons.

24 That is the last point. Thank you very
25 much.

THE CHAIRMAN: Thank you very much, Mr.
Sadler. You will be interested to know that some of



1
2 the alternative methods of energy production you
3 mentioned here have certainly been brought up on
4 several occasions during our meetings, including some
5 additional ones, and the Commission will be taking
6 all these into account when we conduct studies and
7 when the main enquiry begins.

8 MR. SADLER: Can I just comment on that?
9 I quite realise that these things are in the public
10 eye. It seems to me that what is missing is a full
11 scale thrust to research and develop such things.
12 They are being very much left on the fringe right now.

13 THE CHAIRMAN: Solar energy, for
14 instance, in the United States in so far as the energy
15 research and development agency of the United States
16 Government is concerned is now their top priority
17 item in so far as there is more funding going into
18 solar energy this year as a percentage than any other
19 form of energy production so there seems to be
20 increasing recognition that this is a very important
21 source of energy.

22 As a matter of interest, of course, the
23 solar energy which reaches the earth in three days is
24 equivalent to all the stored fossil fuels, nuclear
25 fuels, that we possess on earth. That just gives some
indication of the fantastic amount of solar energy and
of course we only receive half of one billionth of



1
2 what the sun is emitting.

3 DR. STEVENSON: Talking about de-centralized
4 electricity production, Mr. Sadler, we had a professor
5 at Queen's bring us up to date on the technology in
6 fuel cell development. One possibility is that central
7 power stations continue to exist. Instead of generating
8 electricity (inaudible) hydrogen piped through our home
9 perhaps in the natural gas distribution system and by
10 then we won't have any natural gas to distribute.
11 Then, in our basement there is the fuel cell operating
12 on this hydrogen source which generates - I am getting
13 away in over my head - but it generates electricity so
14 this would be centralized electricity production. In
15 his terms it was not that far off, but even if you
16 added a decade or two, it probably is in our terms of
17 reference to look at this.

18 THE CHAIRMAN: Thank you very much, Mr.
19 Sadler. We did not expect these written submissions
20 and they have been of tremendous interest of
21 course, would not perhaps have taken quite so long.
22 However, is there anybody else here who would like to
23 get up and give us their thoughts, please do.

24 SUBMISSION BY MR. RICHARD BECK.

25 MR. R. BECK: Members of the
Commission and the public, my name is Richard Beck
and I am an engineer employed at Canadian General



1
2 Electric in a Nuclear products department and that
3 has been a large part of my background so that is
4 my special interest.

5 I appear as an individual because of
6 my own interests and concerns about electrical and
7 other forms of energy.

8 There have been many issues raised
9 here tonight which were probably intended to be the
10 subject matter of a later investigation of the
11 Commission and I certainly hope to address myself to
12 a number of those later on but tonight I would like
13 to concentrate on what I interpreted as the purpose
14 of the preliminary meeting which was to suggest things
that the Commission should be considering.

15 First of all, electricity is part of
16 the larger energy picture and it would be nice to
17 know that there is a mechanism for co-ordinating
18 Ontario's electricity requirements in the context of
19 national and international energy developments and
20 assessments. In other words, there is a need to
21 co-ordinate what is happening in the world on
22 availability of fuels and price trends, for example;
23 scarcity trends; pollution trends and so on; there
24 is no need to duplicate all of this research and
25 effort at all levels internationally, nationally and
provincially, shall we say, so there should be a



1
2 mechanism for a regular review of these matters and
3 an agreement between the various levels of authority
4 as to who is going to study what and how are they
5 going to get their information and disseminate it.

6 Then a little closer to home, I feel
7 there should be especially now under the new arrange-
8 ment of Ontario Hydro a more clearly defined set of
9 responsibilities between Ontario Hydro and the
10 Provincial Government. I think it's very important
11 that each one knows what his responsibilities are
12 and it doesn't mean to say that Hydro's is not subject
13 to review but you can't review every little detail,
14 every person in the Ontario Government cannot review
15 every little detail which goes into a generation system
16 but it is possible to agree I think on a set of
operating ground rules, if you like.

17 I have the impression from what I have
18 seen that under the chain of organization that this
needs to be clarified and the sooner the better.

19 In the province, it is part of this
20 larger picture that I mentioned about co-ordinating
21 on a national basis with energy requirements but
22 certainly there is a need to look at electrical
23 energy in the province in relation to other uses also,
24 or sources of fuel, if you like, which includes the
25 oil and the gas and the coal, and these are all



1
2 related. The relationship keeps changing as the years
3 go on and as the economics develop.

4 So again it is a case of agreeing who
5 should be looking into these things at least insuring
6 that they are reviewed and the information is up to
7 date. People may not agree on how to interpret the
8 facts but at least we should try to insure that all
9 fields are covered but not wastefully duplicated.

10 There is no question about the use of
11 electricity and that it is going to continue rising
12 and there have been studies that show that even if
13 the population were to stabilize today, for example,
14 there will be continued population growth over some
15 time. Even if we were to stop using electricity and
16 hold it at our own levels, the implication is that
17 somebody would have to keep generating electricity
18 at increasing rates in order to bring up the have-nots
19 to the level of the haves; and this seems to be a
20 generally desired objective.

21 For myself, I don't fear the growth of
22 electricity. I keep thinking of what a kilowatt
23 hour is. It is not a very big term, a bit of
24 electrical energy, because a kilowatt might represent
25 your stove operating for, say, an hour, a kilowatt
hour, and as a very rough parallel, that is equivalent
to a horse power, and I would sure hate to do the work



1
2
3 of a horse for an hour for what I buy for 3¢ from
4 Ontario Hydro.

5 I can think of many other ways that we
6 can continue to improve our standard of living and
7 quality of life but it is going to take probably more
8 energy before we start to saturate out on the S curve.

9 Personally I am grateful for the advances
10 that have been made in production which have enabled
11 me to earn a good living and have enough spare time to
12 walk in the Buckhorn Wilderness Centre by myself or up
13 in Algonquin Park and to have time to enjoy music and
14 arts and other things instead of working like a horse
15 for so many hours for so little return.

16 So I don't fear the future. There are
17 ways accomodating for this. There are ways that are
18 known now. I think we need much better education on
19 it.

20 Some suggestions I have, I think the
21 Commission should address itself to future ground rules
22 for establishment of expansion of facilities in Ontario
23 Hydro. This in fact is its main mandate. I think it
24 is important that they do indeed establish some ground
25 rules so that we don't have to go through this old
ground continuously forever after. That does not mean
that there would not be scope for change in the ground
rules later on provided it is done on an as needed



1
2 basis and by mutual discussion and agreement.

3 These ground rules should consider not
4 only of course the growth rates but also such things
5 as environment and so on. These all have to be
6 balanced out but I still think it is possible to
7 evolve a set of ground rules which take into account
8 the balance short term and the long term interests.

9 There are things that can be done in
10 conservation and of course we should all encourage
11 these. We have heard some of them. Perhaps one of
12 the outputs of the Commission could be as has been
13 suggested, I think a series of suggestions or booklets
14 or something on how energy can be conserved and nobody
15 would argue with that.

16 On the question of transmission lines
17 which seems to be very contraversial, yes, we want to
18 minimize them if we can. One thing which might be
19 considered and probably is being already is that the
20 use of high voltage transmission lines typically has
21 been thought of as being appropriate to long distances.
22 As I recall in some other countries there is another
23 situation which benefits from the use of high voltage
24 and this is low density. In other words, by increasing
25 the voltage maybe the distance is not so great but you
can transmit maybe twice or three times as much power
by going to the higher voltages and this means less



1
2 corridors. It may be that we could increase the
3 transmission density of our power lines more
4 economically than some other solutions.

5 Over the next three years, that is a
6 long time for a Commission to operate, and if
7 tonight is any indication you will get all kinds of
8 suggestions, many of them conflicting. I think the
9 Commission should as soon as it appears feasible begin
10 to boil down the suggestions, in other words, develop
11 the answers to the more obvious questions which have
12 obvious answers or are questions of fact or information,
13 and get on with the business of trying to resolve the
14 issues to a few key issues and if necessary commission
15 special studies on those, in other words, a plan of
16 action which foresees a diminishing activity focusing
17 in on the main problems rather than an endless one
18 ending up with just a welter of information and really
19 no valuable recommendations.

20 I have a question about whether interim
21 results and submissions are liable to be made public
22 or will be made public. I think this would be very
23 desirable because I think it is important to get as
24 much interplay as possible from other people and I
25 think anyone that has the interest they should be
able to go and see some of at least typical
submissions on various subjects so if they wish they



1
2 could take the trouble to present the other side of
3 the case if they feel that is important.

4 I also feel that it will be important
5 to get perhaps more than one opinion on some of the
6 more controversial subjects and I don't know what
7 the Commission's plans are in this regard. They
8 should be not frivolous opinions. They should come
9 from perhaps two or three or even more on the key
10 issues, people or individuals.

11 I think the professional associations
12 should be sought perhaps not only for official
13 statements but encouraged to ask the members to
14 prepare individual submissions and I think you might,
15 I think it is great that there may be funds available
16 for specific individuals or groups but I think it
17 would also be great if a lot of individuals would
18 contribute a little bit of their own time in reading
19 these assessments and coming up with their own.

20 I think you could get a tremendous
21 input from this and especially if the professional
22 societies picked it up as a kind of a project over
23 the next two or three years you might get quite a
24 response. I don't say just the professional groups
25 such as the engineers. There may be indeed many
other groups that will take these things on.

Finally, I hope that out of all these



1
2 deliberations will come some conclusions and
3 recommendations and some firm plans, some decisions.
4 We can't go on sort of all the time indefinitely
5 debating every fine point. There will have to be
6 compromises. It would be very nice if the Commission
7 upon its conclusions would state the reasons for its
8 decisions so that at least these can be known to those
9 people who have not been fully satisfied on all points.
10 It is inevitable, even in this room tonight we can see
11 that people don't all think the same and whatever
12 results come out of it will be compromises indeed.
13 So, everybody won't be fully satisfied, but it is a
14 democratic country and we hope they will all be
reasonably satisfied.

15 I think that is the gyst of my comments.
16 I had hoped to get these typed up and had not managed
as yet but perhaps I will later.

17 Thank you very much.

18 THE CHAIRMAN: Thank you very much, Mr.
19 Beck. You have raised of course very many issues.
20 In so far as the final report is concerned of course
21 there will be recommendations and hopefully there will
22 be arguments that lead up to these recommendations.
23 For my part, as chairman of the Commission and as an
24 erstwhile scientist, that is the only way I can think.

25 You mentioned the desirability of



1
2
3 coordinated studies relating to the energy problem as
4 a wholistic problem. Perhaps largely as a result of
5 the influence of this Commission the Minister of Energy
6 in the province is launching a major study in the area
7 of demand for energy across the province and not merely
8 of electrical energy but all forms of energy and this
9 of course is going to provide valuable input to the
Commission.

10 Bob Costello has just mentioned, and I
11 thought I had mentioned it previously but obviously
12 I did not, that the Commission intends to issue a
13 report. We don't call it an interim report because
14 is isn't an interim report. I don't think there is
15 such a thing as an interim report in so far as this
16 Commission is concerned, with the breadth of its
17 mandate and so on but we will be issuing a report on
18 the public meetings that we have held and the issues
19 that have emerged and this hopefully will be ready
20 by the end of February.

21 Maybe there might be another report
22 after we have had the information aspects of the
23 Commission's activities, when they are completed
24 there may be one on information.

25 You mentioned the availability of
briefs for people interested in them. This of course
is a rather massive logistic problem. Everything that



1
2
3 has transpired during these meetings is of course
4 recorded and these transcripts of the meetings are
5 available at the Commission's offices. These are
6 rather massive in bulk already, I expect about this
7 high (indicating off the floor); and therefore it is
8 not easy to conceive of a method of distribution, but
9 what we hope to do when we get our information system
10 going, as I had hoped it would have been going a few
11 months ago, I conceived an information system the day
12 after I was appointed as chairman of the Commission as
13 a matter of fact, but this has not gone into action
14 yet although I understand this week there will be
15 tenders out for its implementation and it is based
16 on computer data banks with accessibility of data on
17 as broad a basis as possible. It also handles perhaps
18 patterns that have emerged in the hearings. It is
19 leap-frogging the Watergate Senate hearing system,
20 that we discovered after this had been developed a bit
21 that Watergate had used a similar system. In fact,
22 they said the Watergate Senate hearings would never
23 have been completed had they not used a system of this
24 kind.
25

22 Now, this could help in this connection
23 but it may be a few months yet before it is ready, but
24 I can assure you that anybody wanting any information
25 relating to any of the meetings or indeed relating



1
2 to any subject which we have researched and collected
3 information on, you are very welcome at any time in
4 the Commission offices.

5 We are making contacts with professional
6 associations to ensure that their members are aware
7 of the significance of this Commission and they will
8 be urged to contribute wherever possible.

9 In so far as the professional engineers
10 are concerned I believe in the next month the
11 President's letter will be based very much on the
12 work of this Commission and it will encourage all
13 members of the profession of course to participate;
and the same will happen in other professions.

14 I am sure in view of the very broad
15 range of your contribution there might be other
16 points.

17 You mention the possibility of us
18 getting together groups of experts to debate key
19 issues. Hopefully we will do this through symposiums
20 obviously open to anybody that wishes to attend and,
21 hopefully, the media, television particularly, will
pick this up because these will be world authorities.

22 I can just think in the nuclear field
23 for instance of one or two people that would take the
24 pro side and do it very, very effectively. I can
25 also think of one or two people that would take the



1
2 more cautious approach to this whole problem and also
3 do it very effectively; and then the public can
4 balance the pro's and the con's and this of course
5 is what the Commission is so very much concerned with.

6 We are very grateful to you for your
7 submission. Is there anybody else with a burning
8 desire at this time to come forward?

9 FROM THE FLOOR: I would just like to
10 have a question answered. Can you tell me how much
11 hydro power Ontario Hydro exports and how much is
12 imported into Canada and what the cost of importation
is and the money received from export?

13 THE CHAIRMAN: Dr. Stevenson is of course
14 the economist of the team and always has these facts
15 at his disposal and I am sure he has.

16 Let me just say while he is looking it
17 up that there is a balancing out here. There is
18 imported electrical power and there is exported
19 electrical power and these vary from one year to the
20 next year and so on, but Bill probably has it right
there.

21 DR. STEVENSON: You wouldn't believe
22 how difficult Hydro makes it to find that figure.
23 For example, they don't call exported power exported
24 power. They call it "secondary sales" and so on.

25 One of the Energy Board recommendations



1
2 was that they spell it out in the future not only how
3 much power they are exporting but how much profit they
4 are making on it because it is a highly profitable
5 activity for Hydro, has been traditionally.

6 I think it is in here, madam, and if you
7 and I will spend about three minutes after the meeting
8 we will find it. As I say, it is tough to get.

9 As we know, however, Ontario Hydro is
10 buying more power from its neighbouring provinces right
11 now, Manitoba and Quebec, than it is selling to the
12 United States. It is buying firm power, large blocks
13 on multi-year contracts, highly desirable deals which
14 however are coming to an end in the next few years
15 and Ontario is simply not sure at this point whether
16 it could make renewals of these arrangements.

17 It is selling power to the States on
18 the opposite basis, short term, interruptible sales
19 which can be cancelled at any time if Ontario firm
20 customers need the power so the two transactions are
21 quite different in kind.

22 The figures are in here. One of the
23 curiosities in 1975 is that Ontario Hydro's forecast
24 profits on sales to the Americans have been going
25 down month by month for the year because the American
recession extended longer than was thought and
possibly because of the effects of the conservation



1
2 efforts in the States that somehow started to impact
3 on load growth in the States. In any event, Ontario
4 Hydro will be making less than half the profits that
5 it hoped to this year on export sales.

6 MR. POWELL: On page 39 you will find
7 it on the right hand side.

8 DR. ROSEHART: Ontario Hydro imports
9 something like 16% of the electrical power in the
10 province.

11 DR. STEVENSON: It purchased 14 billion
12 kilowatt hours in 1974, and I am still looking for the
13 exports. They may be on this page. We will find them
14 later.

15 SUBMISSION BY MR. FRED HALINER.

16 MR. FRED HALINER: Mr. Chairman, members
17 of the Commission. My name is Fred Haliner. I don't
18 wish to label myself, I don't believe in labelling
19 others, but if I say that I have sympathies with
20 speakers Goering, Lawson and Sadler I think my
21 identification would become apparent. My sympathies
22 with them lie in the area of doing all in our power
23 to restrict demand rather than to meet forecasted
24 demands.

25 There are a couple of points that I would
like to raise in connection with what other speakers
have said. One speaker recommended that the Commission



1
2 take under its terms of reference the more immediate
3 problem rather than the long range problems to which
4 it addresses itself. I know it from the background
5 material that the Commission already has a few short
6 term projects on its plate and it intends to resist
7 further issues of this type.

8 I would heartily concur with that decision
9 on the part of the Commission. I have seen situations,
10 the Niagara Escarpment Commission is one, there were
11 the long range problems to which that Commission
12 wishes to address itself and is supposed to address
13 itself have been hamstrung by these short term issues
14 that are forever being handed over for their consider-
15 ation.

16 While I am in sympathy with the problems
17 of the Lennox to Wesleyville line, I would not
18 recommend that the Commission look at that seriously
19 but rather turn it over to someone else.

20 I would, as a citizen of Peterborough,
21 like to disassociate myself with some of the remarks
22 that Mr. Powell made. It was implicit in much of what
23 he said that we in Peterborough would like to get power
24 at the cheapest possible cost. I think this is a very
25 short term outlook. Others have pointed out that in
providing cheap local power we are doing nothing more
than transferring the cost to some other part of the



1
2 province and I for one would support the speakers who
3 have said that they are prepared to pay the full cost
4 as consumers, prepared to pay the full costs of whatever
5 form of energy is provided to us.

6 THE CHAIRMAN: Thank you very much, Mr.
7 Haliner. Your point about the terms of reference of
8 course as you probably recognize is beyond the powers
9 of the Commission. These are laid down in orders in
10 council and any changes of these of course would
involve actual change in the order in council.

11 Thank you very much.

12 DR. STEVENSON: In 1974 Hydro purchased,
13 I think I said 14.5 trillion kilowatt hours and sold
14 in export markets 3.1 trillion.

15 FROM THE FLOOR: Is there a price
16 variance? Do you have the actual amounts?

17 DR. STEVENSON: Not on this table.
18 It costs more to buy a kilowatt hour. You are buying
19 it firm. It is worth more to you. It displaces
20 capacity. You don't have to build a plant to depend
21 on power, but they are selling surplus power. That
22 merely replaces coal that would have been burned in
23 the States but it doesn't replace any capacity, so it
24 is sold for less. They are really not equivalent
25 commodities.

MR. COSTELLO: One other point there is



1
2 that we are really taking into the province power that
3 is generated from water and selling power that is
4 generated from fossil fuels.

5 THE CHAIRMAN: Well, ladies and gentlemen,
6 I gather that the meeting is rapidly coming to a close.
7 I am very grateful to you for your patience and very,
8 very grateful for those of you that have participated
9 and that means every single person in this room of
course has participated.

10 If our next series of meetings goes as
11 well as the present series I think we shall be very
12 happy people; and I hope the people of the province
13 will be happy people too because we are reacting to
14 your wishes.

15 Thank you very much; good night; and
16 a very Merry Christmas to all.

17 ---THEREUPON THE MEETING WAS ADJOURNED.
18
19
20
21
22
23
24
25

CA24N Z1

-75E21



Government
Publications

THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: January 22nd, 1976.

TIME: 7:30.p.m.

LOCATION: Listowel, Ontario.

VOLUME NO: 17



ANGUS, STONEHOUSE & CO. LTD.
TORONTO, ONTARIO

CANADA

-75621

Government
Publications

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Meeting held at Henderson
Hall, Central Public School,
Listowel, Ontario, on the
22nd day of January, 1976
at 7:30 p.m.

CHAIRMAN: DR. ARTHUR PORTER

MEMBERS:

MR. ROBERT COSTELLO

MR. GEORGE McCAGUE

APPEARANCES:

DR. BOB ROSEHART - Scientific Counsellor
to the Commission.

VOLUME 17



I N D E X O F S U B M I S S I O N S

		<u>Page No.</u>
1		
2		
3		
4	Submission by Mr. Adrian Vos	2154
5	Submission by The Corporation of the Township of Stephen	2163
6	Submission by Mr. Arnold Oliver and Mr. Ewald Hackman	2166
7		
8	Submission by Mr. Ted Witworth	2177
9	Submission by Mr. Tony McQuail	2178
10	Submission by Ms. Denise Newell	2191
11	Submission by Mr. Campbell	2200
12	Submission by Mr. William Benson	2213
13	Submission by Mr. Eldon Vines	2223
14	Submission by Mr. Mason	2242
15	Submission by Mr. McCourt	2244
16	Submission by Mr. Allan Walper (Read by Miss Beverly Brown)	2249
17	Submission by Mr. Davey	2254
18	Submission by Mr. John Verveek	2262
19	Submission by Mr. Moore	2266
20	Submission by Mr. Hans Palpman	2286
21	Submission by Mr. Lorne Murray	2288
22	Submission by Mr. Elroy Margeman	2292
23	Submission by Mrs. Manion (Not presented verbally.)	2306
24		
25		



DP: 1
yk

THE CHAIRMAN: May we come to order,

Ladies and Gentlemen, please.

Welcome to this preliminary public meeting of the Commission. As a matter of fact, this is the 35th Session and it so happens this is the last session of our preliminary meetings.

Most of you know that this is really an adjourned meeting. It started in Wingham on November 27th. I unfortunately was not there but my good friend George McCague of course chaired that meeting. The response was so good, in fact the attendance at the Wingham meeting was twice as large as at any other meeting across the Province of Ontario; so this is the reason that we are reconvening because several of the submissions prepared for that meeting we did not have time for, it went well past midnight, and George decided maybe we should reconvene at this later date.

Again, as most of you know, we should have reconvened last Wednesday night but because of weather conditions we delayed it until tonight and even now I gather that Stephen Township is snowed in so their submission will then have to be sent in in writing I suppose, if they don't make it.

Before starting, I am sure you all

know



1 George McCague and most of you at the Wingham meeting
2 will have come across Bob Costello. I am not going
3 to introduce them in any more detail than that.

4 Two of the Commissioners unfortunately
5 could not join us this evening. Solange Plourde-Gagnon
6 was involved in a conference at Windsor and Dr.
7 William Stevenson is busy on the last phases of the
8 Ontario Energy Board Report which is due at the end
9 of this month. They send their apologies to you.

10 I would like to mention one or two
11 things before we start. I hope those of you that
12 received the questionnaire from Debbie Stark who is
13 a Grade 13 student in the high school will be able to
14 complete it for her. She asked especially if she
15 could come and get this organized. It is part of her
16 school project and therefore it is very important to
17 her. She hopefully will be going to Guelph University
18 next year. This project of hers will expedite her
19 getting in to the University. I am sure she would get
20 in anyhow, but I just wanted you to know that this has
21 full blessing of this Commission.

22 While I am talking about introductions,
23 there are a few Ontario Hydro people here this evening.
24 They have come to^{be} educated just as you educate us and
25 maybe, so you will be able to identify them, I wonder



1 if they would mind just standing up? Thank you
2 very much, gentlemen.

3 I am not going to go into introductory
4 remarks, as it says here, in much detail, but what
5 I thought I would like to tell you about, and this
6 will be the first audience that has heard this because
7 it has happened within the last few weeks, that is
8 what the next stages of the Commission program are
9 going to be and what publications and things we will
10 be producing in the reasonably near future.

11 Talking about information publications
12 and things, I hope those of you who have not completed
13 the information sheet at the Wingham meeting perhaps
14 you would do so now. The reason is that if you do
15 this you will then be on our special mailing list
16 and so all information relating to the activities
17 of the Commission will be mailed to you; so we think
18 it is rather important that those of you who wish to
19 keep in as close touch as possible will fill this
20 information sheet in.

21 One of the problems I am sure many
22 of you feel is the problem of how do you know what has
23 been happening during meetings of the Commission.
24 As I say, this is the 35th Session and clearly it
25 will be quite impossible for us to go through all the



1 issues and concerns that have been raised during
2 these meetings. However, we hope that a report on
3 the issues and concerns, and not only on the issues
4 and concerns but also on the progress that the
5 Commissioner has been making in establishing an infor-
6 mation centre and in questions like this and looking
7 to the future and so on, that this report hopefully
8 March 10 is the publication date as of right now,
9 George and Bob, because I think it was more or less
10 changed yesterday, George was up here; so this will
11 be something that we will be able to get an
12 appreciation in of the whole Province's views relating
13 to the work of the Commission.

14 I think some of you have already
15 expressed the view that you would really like to
16 know what has been going on and I feel this will give
17 you a very good indication of that.

18 The next stage in the work of the
19 Commission relates to what we call the obtaining of
20 information; information which relates to the queries
21 and issues and concerns which have been raised during
22 the meetings. In other words, we went out to the
23 Province, to the broad cross-section of the people
24 of the Province with letter, if not in person, such
25 as a meeting like this, then perhaps through the



1 media and so on. Now we have got these, we are
2 categorizing them and we are writing this paper on
3 them.

4 Now we want to go to the appropriate
5 authorities to get the relevant information so that
6 these issues and concerns can be discussed in an
7 open forum. These information hearings of course
8 are open to the public so that when we have got the
9 information then the stage of the Commission's work
10 which we call the main inquiry will begin.

11 You might think this is a long drawn-
12 out process but obviously in view of the complexity
13 of our terms of reference and the fact that we are
14 looking to the end of the century, virtually, then
15 you can't go into a main inquiry without all the
16 information that is available.

17 So Ontario Hydro will be coming
18 forward. They will be examined by a panel of examiners
19 at which the Commission is appointing; some of the
20 top people in Canada, not merely in Ontario but
21 coming from Vancouver, for instance, so this will be
22 an examination process to get this information.

23 Then we will be doing the same thing
24 with various government departments. These will relate
25 to Regional Planning; it will relate perhaps to



1 Health matters; it will relate certainly to environ-
2 mental concerns, to do with the environment, for
3 instance.

4 It will relate to other environmental
5 matters which are not really electrical energy but
6 are closely related thereto, that is these fossil
7 fuels, oil, natural gas and coal and that sort of
8 thing, so we will be getting a total picture.

9 Those meetings will begin in Toronto
10 on March 31st. Some of them will be held away from
11 Toronto. We have not decided yet on the locations
12 but these will be announced in plenty of time. As
13 a matter of fact, the formal announcement of the
14 series of meetings, and they go on for three months,
15 they start March the 31st, finish July about the 24th,
16 I think, and the official statement as I say will be
17 in the press next week and it will indicate all the
18 areas. We have delayed it until next week because
19 of this meeting, as a matter of fact, just to see if
20 any concerns come out this evening that have not been
21 brought up previously, and that is the delay.

22 There are 14 categories you will see
23 that we have brought up. So the next stage then is
24 we are going to say what information have you, how
25 is that information being used. That is the straight-



1 forward information collection.

2 The last stage will be why. Why are
3 doing this or not doing that or why are you using
4 these assumptions. That will be the main inquiry
5 stage.

6 So I thought I would like to sort
7 of bring you up-to-date on what we have been doing
8 and looking a bit into the future. As I say, this
9 is the first group that has been given this information
10 essentially because of the timing.

11 I don't mean to take any more time.
12 We got a little bit of a late start and we have 10
13 briefs that have been prepared and I would say at this
14 time, and I would say again at the end, that we are
15 extremely grateful to those of you - first of all
16 for coming and secondly for the rather special people
17 who took the time to write out their ideas and thoughts
18 and presented them to us. We have a total across the
19 Province now of 250, and I think that is a pretty
20 creditable effort on everybody's part, not ^{the} / least
21 on the part of the people in this general area because
22 you have been shining examples of what public parti-
23 cipation really means.

24 I did not introduce Bob Rosehart to
25 you who is the Scientific Counsellor, nor Marc Couse



1 who is the Administrator and drove us here as a matter
2 of fact.

3 I was just going to say thank you
4 to Walter Davis. He made the arrangements for this
5 meeting and for the Wingham meeting.

6 Well, Ladies and Gentlemen, on that
7 note perhaps Mr. Adrian Vos who is well known to some
8 of us would like to speak. I think if you don't mind,
9 Mr. Vos, would you like to come up here. We will
10 reserve that one for anyone who has a verbal communi-
11 cation.

12 Thank you very much.

13 SUBMISSION BY MR. ADRIAN VOS:

14 MR. VOS: Thank you very much.

15 Mr. Chairman, Ladies and Gentlemen, I hope you will
16 appreciate the fact of the weather we have today.
17 I have come from a considerable distance. I have seen
18 a lot of people here that do come from greater
19 distances and if the weather is anything like what
20 I came through, anyone who is here took his life in
21 his hands actually over some stretches of roads; and
22 to come down here it shows that the people here are
23 concerned about the issues.

24 I go to my submission now.

25 The Huron Power Plant Committee,



1 comprising all farm groups in Huron County, and these
2 are 19, a list of which groups is already in the hands
3 of the Commission, have studied the concept of
4 Ontario Hydro's long-range plan and have come to
5 the conclusion that the establishment of a generating
6 station on the shore of Lake Huron in Huron County
7 is totally unacceptable to our agricultural community.
8 The arguments that are to be set forth in this sub-
9 mission are valid not only in Huron County but
10 throughout the food-producing area of Southern Ontario.
11 However, we will limit our arguments to the area
12 our Committee represents.

13 Huron County is an area that is 90%
14 agricultural and as such plays a major role in the
15 production of food for Ontario, Canada and the
16 World. In 1973 the total value of food produced in
17 Huron County was some \$120 million. I just learned
18 last week that in 1975, it was an amount of \$135 million.
19 The building of a major industry such an electric
20 generating station will undoubtedly attract secondary
21 industry to the area as has been repeatedly demonstrated
22 throughout recent history.

23 I know that I talked to Hydro people
24 and they tell me it is not necessary that the local
25 council, the County Council can prevent this; but in



1 practice no County Council can resist. It is
2 impossible to resist if you have an influx of people,
3 to resist more industry.

4 This industry then creates need for
5 residential expansion and the total pollution caused
6 by such a development will cause in turn a significant
7 decrease in crop yields. The economic impact of only
8 a few percentage points in lower gross income on an
9 amount in the neighbourhood of \$120 million and a
10 population of 52,000 doesn't have to be elaborated
11 upon. I still will elaborate a little on it, Mr.
12 Chairman, if you will allow me, because this \$120
13 million is not all in crops, probably \$100 million
14 is in livestock, but most of the food that is fed
15 to this livestock is grown in the County so it comes
16 down to the same results. I just wanted to bring
17 this up to avoid argument on this point.

18 Aside from the economic impact there
19 are other considerations that are possibly more
20 important. We are told that the world population will
21 double in the next 25 years. This means that the
22 world food output will have to double as well. Even
23 if we in Ontario did double our production, and it
24 is doubtful. to say the least, if we could; other
25 food-producing areas in the world cannot. Our



1 moral obligations then are clear. We can't afford
2 to decrease our food production for moral reasons.

3 The arguments against the generating
4 station on our food lands are then two-fold and we
5 feel that Ontario Hydro should show cause why the
6 development of electricity production should be on
7 our food lands in Southern Ontario. I would like
8 to underline this, Hydro should show cause why the
9 development of electricity production should be on
10 our food lands in Southern Ontario.

11 Officials of Ontario Hydro have told
12 me that it is their duty to produce electricity at
13 the lowest possible cost and if this is on food land,
14 so be it. If society thinks that extra cost is
15 warranted by leaving food land alone, then society,
16 through government, should tell Hydro so. We ask
17 the Royal Commission to do just that, tell them so.

18 The cost of electricity should not
19 be calculated only on construction cost of the plant
20 and the power corridors and the grants to municipalities,
21 but should also include the cost of food to the public
22 in the producing of food by the farmer. The total
23 cost of electricity would be considerably higher even
24 if it doesn't show on the utility's bill.

25 In previous submissions we have urged



1 the Commission to initiate or finance a study on
2 the effects of a generating plant in our County and
3 the neighbouring Counties and we still maintain that
4 this should be done.

5 Our Committee fully supports the
6 submissions made at earlier meetings by the Ontario
7 Federation of Agriculture, the National Farmers
8 Union and the various farm commodity groups and action
9 groups and the Christian Farmers' Federation.

10 In view of the above we are concerned
11 about one part of the priority report the Commission
12 is asked to make. This concerns the 500 K volt line
13 to Kitchener. If a generating site in Huron County
14 is rejected, will this one still be necessary or
15 would the location of this line still be the same?
16 Then will the erection of this line be an added
17 incentive to build in Huron County?

18 Respectfully submitted.

19 THE CHAIRMAN: Thank you very much,
20 Mr. Vos. I don't know whether you, George, have any
21 points, or Bob.

22 MR. COSTELLO: I think in relation to
23 the questions in your last paragraph, Mr. Vos, we
24 obviously can't answer your questions here tonight,
25 but these are the questions we have to seek answers



1 for.

2 MR. VOS: That is all I am requesting
3 the Commission to do.

4 Mr. Chairman, if there is no more on
5 this brief, may I remark on something else.

6 MR. McCAGUE: You speak of previous
7 submissions where you have urged the Commission
8 to initiate or finance a study on the effects of a
9 generating plant in Huron or neighbouring Counties.
10 This seems to me, as I recall it, the first time that
11 this has come out in a presentation.

12 MR. VOS: In a public presentation.
13 It has been sent in in a presentation I mailed directly
14 to the Commission.

15 MR. McCAGUE: But not a public meeting.

16 MR. VOS: Not at a public meeting,
17 no.

18 MR. McCAGUE: Could you expand on that?
19 This in itself is a substantial undertaking, isn't it?

20 MR. VOS: Yes, it is. I will try
21 to recall as many points as I can. It happens that
22 the resolution by Stephen Township circulated to
23 the other municipalities of Huron County and supported
24 so far by 17 other municipalities, asks about the
25 same questions.



1 MR. McCAGUE: And Stephen is not
2 here tonight.

3 MR. VOS: Stephen cannot be here
4 because they are completely snowed in. The roads are
5 blocked. But they asked for a study and we asked for
6 the same study on the social effects of a major
7 project of a power plant in Huron County; and to show
8 what is the cost of schools, jails, extra police
9 protection, extra roads, there are so many things that
10 should be included, and how much more taxation is
11 going to be caused to the inhabitants of Huron County.
12 We would like to see answers and the Township says,
13 we oppose it until we have answers to these. What
14 will be the effect on crops. We know it has effect
15 on crops. We know figures are available at several
16 universities but we have not got the funds or the
17 time from our farm work to go out and dig into the
18 libraries at universities and get this out. We asked
19 for a study on this. Our Commission asked for even
20 a limited grant for the graduate students to go out
21 in the University of Guelph and they got what they have
22 there, they have figures there, for the detrimental
23 effect on corn, on beans, on lettuce, on potatoes,
24 on onions. This is established already that there
25 is a loss in these crops. How much we don't know, and



1 this is what we would like to know.

2 As I said in the brief, 1% or 2% on
3 \$120 million on a small population like this, and
4 what will it do to the income of our municipalities.
5 This money is spent mostly in these small municipalities.
6 what will it do?

7 Then there are disturbing reports of
8 the electromagnetic effects on livestock. We should
9 know more about this. We should ask for material,
10 what they have in studies already done, if this is
11 a true report or not, we have to know.

12 Another thing of general concern is,
13 we know, it has been admitted and published by
14 Hydro that there has been radio active leaks from the
15 Bruce Plant into Lake Huron and so far these have
16 been very small and it has been dispersed and there
17 has been no danger; but if they built one in Huron
18 County, that is the big water supply for the City of
19 London, what will happen if it gets swallowed up into
20 that water intake pipe and is fed into the water
21 system in London? That is a thing of concern that
22 should be studied. An accidental leak could do a lot
23 of harm there.

24 It is these things that we want answers
25 for. What will happen if a firm that is marketing



1 a product, competitive with the product grown in
2 Huron County, starts saying, my product is not grown
3 in the neighbourhood of a nuclear plant because,
4 you know, there may be radiation down there. True
5 or not, some astute fellow might use it, you know,
6 our crops and our beef and our pork could be unsaleable.
7 True or not, what is the effect on our markets.
8 Maybe somebody can study this; maybe some answers
9 can be had.

10 We would like to see a study then,
11 what would be the effect of the advantages or the
12 disadvantages of Hydro building on our food lands
13 in Southern Ontario as against more northern areas
14 where there was no or very little food lands, what
15 the advantages, if any, to Hydro would be and what
16 would be the - what the advantages would be if it
17 was built in the southern area of Ontario.

18 If I recall right there were 14 or
19 15 questions we would like to see answered and
20 if you have not got them any more I am sure you will
21 get these mailed in from Stephen Township, this
22 resolution - or I can send it. Do you have it there?

23 THE CHAIRMAN: Actually, yes. Mr.
24 Vos, I will read^{it} out and this will go into the record
25 of course, but the study that Mr. Vos is talking about



1 as described in the submission of the Township of
2 Stephen, this was to be delivered this evening by
3 Doug Russell actually and the appropriate portions
4 read as follows.

5 SUBMISSION BY THE CORPORATION OF THE TOWNSHIP
6 OF STEPHEN.

7 RESOLUTION REGARDING ONTARIO HYDRO GENERATING STATIONS

8 Therefore be it resolved that the
9 undersigned municipalities in Huron County request
10 the Royal Commission on Electric Power Planning
11 (Porter Commission) that a study be done in the
12 following areas:

13 1. The effects of a power plant in
14 Huron County on the main industry, agriculture.

15 2. How much land can we expect to
16 lose for power corridors and transformer stations as
17 well as road widening and new highways.

18 3. What can normally be expected in
19 industrial expansion and residential development as a
20 spin-off of a power plant.

21 4. What can we expect the social cost
22 to be to our local committees as schools, police,
23 jails, recreation facilities, sewers and treatment
24 plants (lagoons).

25 5. What is the effect of power



1 plant related pollution on food plants such as beans,
2 tomatoes, potatoes, lettuce, alfalfa, tobacco, onions
3 etc.

4 6. What will be the effect on farm
5 labour cost and hence food cost.

6 7. What is the effect on human
7 health, animal health and plants under the influence
8 of the electro-magnetic fields of high tension power
9 lines.

10 8. What is the cost to the live-
11 stock producer as a result of urban expansion crowding
12 intense livestock operations.

13 9. What is the effect of possible
14 marketing problems for food grown near a nuclear plant
15 because of fear of radio active contamination
16 of food.

17 10. The total effect of power plants
18 in Southern Ontario on our agricultural base.

19 11. A comparison study of the
20 effects of a power plant in Huron versus some more
21 Northern area with limited food land.

22 12. How much more food will be
23 needed in Ontario alone within the next two generations
24 and how much more can we produce.

25 13. In the case of a nuclear plant



1 we must know what an accidental leak of radio-active
2 materials in the air would do, as the prevailing
3 winds are inland.

4 14. What would happen in case of an
5 accidental leak of radio-active material into the
6 water with respect to the water intake of the London
7 pipeline and the effect on the unborn.

8 Those are the 14. I think, Mr. Vos,
9 you covered quite a few of them very effectively.

10 I am going to ask at this time Bob
11 Rosehart if he has any comment because we know that
12 we are sponsoring some studies in some of these areas.

13 DR. ROSEHART: Adrian, as you know
14 about two months ago you contacted the Commission and
15 made a formal application for some of the work being
16 done at Guelph, for the Huron Power Plant Committee,
17 and the sub-committee 'Legal counsel, myself and
18 Commissioner Costello are in the process now of
19 considering several applications, that being one of
20 them, and I think in the not too distant future,
21 two or three more weeks, we should be in a position
22 to let you hear from us for that particular study.

23 MR. VOS: Thank you.

24 THE CHAIRMAN: Thank you very much,
25 Adrian. It was most interesting.



1 I have just had a note put in front
2 of me, and I don't think it applies to any of you, so
3 I will just read it. It just says "There is no
4 smoking in the gym."

5 Another point I would like to mention
6 is that a student, John Perkin, has volunteered on
7 his own this evening to provide the sound system and
8 when I tell you this is about the best sound system
9 we have had in all our meetings in the Province, I
10 am not kidding. This is really something, so we are
11 most grateful to John.

12 Next on our list this evening is
13 Mr. Arnold Oliver. Is Mr. Oliver here.

14 MR. ARNOLD OLIVER: Dr. Porter, and
15 Commissioners, we are pinch-hitting tonight, because
16 of weather conditions. Someone else was to read the
17 brief. My name is Arnold Oliver from Egremont
18 Township and this is Ewald Hackman from Brant Township
19 and he will read our brief for us.

20 SUBMISSION BY MR. ARNOLD OLIVER AND MR. EWALD HACKMAN

21 MR. HACKMAN: Our Committee represents
22 a group of property owners along the present 230 KV
23 line and approved 500 KV line from Bradley Junction
24 to the East/West Luther town line. We appreciate the
25 opportunity, by this method, of bringing forth our
concerns.



1 Our concerns are as follows:

2 (I) COMPENSATION.

3 We are very concerned with Ontario
4 Hydro's present land acquisition policies which are
5 based on a vacant land premise. We believe that
6 property owners must be fully recompensed for land
7 expropriated for transmission line corridors based
8 on 100% of the replacement value of the land taken.

9 A legal loophole presently exists
10 under the present Expropriations Act whereby if the
11 owner elects to grant an easement, Ontario Hydro does
12 not recognize Injurious Affection unless buildings are
13 directly affected. We believe that this policy is
14 grossly unfair. This Commission should recommend
15 to the Legislature of Ontario that, in future, all
16 expropriating bodies must be compelled to pay for any
17 drop in market value and loss in potential benefits
18 now and in the future.

19 (II) LAND USE POLICY.

20 In future, the environmental studies,
21 to be executed by Ontario Hydro, must include input
22 from all affected groups from the beginning. Such
23 studies will necessitate a drastic alteration in impact
24 relativity scales. Hydro must be made to plan and
25 operate within local land use plans and not be exempt



1 from these by-laws. In future, arable land must
2 unequivocally be given prime consideration.

3 (III) PUBLIC PARTICIPATION AND FORMAT

4 We support the idea of informal
5 hearings as much as possible. However, the
6 Hillsburgh Environmental Board Inquiry clearly
7 demonstrated the absolute necessity for a legal
8 framework to be available for formal hearings. We
9 feel very strongly, that your Commission should
10 be given the power of subpoena. Should either your
11 Commission or the public request it, Hydro's repre-
12 sentatives must be placed under oath.

13 (IV) ROUTES AND SITE SELECTION

14 This group is very much aware of the
15 fact that much of Hydro's proposed generating
16 facilities will be located much too far from the load
17 centre.

18 Society must actively consider
19 building smaller generating sites even though these may
20 be somewhat more expensive. We feel that these
21 extremely large generation facilities are much too
22 disruptive and contribute to:

- 23 (a) much larger transmission lines
24 (b) greater disruption in area of
25 generating sites



1 (c) diagonal crossing -- We are
2 firmly opposed to these. The
3 following of lot lines, abandoned railway lines, or
4 highways would cause much less disruption to land
5 owners.

6 Paralleling at 230 KV line with a
7 500 KV line would highly magnify the present agri-
8 cultural impact. The same land owners should not
9 be forced to accept this grave injustice.

10 (V) ENERGY CONSERVATION

11 Another very important consideration
12 and recommendation this Commission must deal with is
13 wastage of electrical energy. Since this wastage must
14 be largely eliminated in the future, we shall have
15 to allocate electrical energy on a priority basis.

16 (VI) COST OF HYDRO EXPANSION

17 We feel that the Commission should
18 investigate the enormous capital costs forecast by
19 Ontario Hydro over the next few years. How much
20 would systems reliability be lessened by reducing
21 reserve generation capacity from approximately 30%
22 to 20%?

23 Can the people of Ontario really
24 afford Hydro's proposed capital expansion program of
25 \$23 billion in the next few years?



(VII) AGRICULTURAL LAND

In Hydro's Bradley/Georgetown

environmental report, agriculture has a fifth priority rating. They only considered Class I and II land and did not take into account any improvements which could be made on other land. They must be made to demonstrate that they are less able to operate on poorer land than the farmers are.

Food production was only given lowest consideration on present and future land use maps, and the route requested by Ontario Hydro traversed the most acres of good farmland. We feel that this gross under-estimation of the value of food-producing land is the single most important item for consideration before your Commission. This imminent energy crisis for people has vastly more sinister implications than the mere stopping of a few cars or machines.

Since there is good and poor land in every area depending on the type of farming one wishes to engage in the most important single factor in the route and site selection decisions must be the over-riding priority of keeping extra high voltage lines away from people as much as possible. We might do well to keep in mind the fact that mankind has flourished, in times past, without Hydro but not without



1 food.

2 Therefore, in view of the aforementioned
3 items, we now formally request your Commission to go
4 back to the Government and formally request, on a
5 priority basis, that your terms of reference be
6 greatly expanded to include the years before 1983.
7 Failure to do so would unavoidably predetermine so
8 many of your recommendations to Government as to indeed
9 make your whole inquiry null and void and an exercise in
10 futility.

11 Your consideration of our concerns at
12 this time will be appreciated.

13 In closing, Mr. Chairman, we must say
14 that our greatest fear is that we shall have several
15 lines, either built or approved, without ever receiving
16 an independent and unbiased study at all!

17 Thank you.

18 THE CHAIRMAN: Thank you very much,
19 Mr. Hackman, and Mr. Oliver for a very comprehensive
20 and striking submission. There are one or two points
21 you have raised that I think I can clarify.

22 First of all, this Commission does
23 have the right of subpoena. At this stage of course
24 we are in an informal process and indeed the infor-
25 mation hearings will be perhaps not quite so informal



1 but reasonably so. This is to get as much public
2 participation as we possibly can. We just want
3 people to come out and speak without being inhibited
4 by any structural process.

5 When we come to the main enquiry,
6 and I think that is what we are talking about, it is
7 highly probable in many cases that a subpoena will be
8 imposed. I think we can be sure of that.

9 There is another question relating to
10 the Bradley-Georgetown Environmental Report. Is that
11 this green document?

12 MR. HACKMAN: Yes, that has just been
13 released about a week ago.

14 THE CHAIRMAN: I think perhaps there
15 is a slight misconception in your submission. You say
16 in Hydro's Bradley-Georgetown Environmental Report.
17 As you will agree, this is not Hydro's environmental
18 report. It was a report done for the Ministry of
19 Energy by the Environmental Board, so I think that
20 is perhaps a minor point that perhaps one needs
21 clarification.

22 Ladies and Gentlemen, I think this
23 report, many of you will have seen this, and it is
24 as I say the report on the Public Hearings on Ontario
25 Hydro Bradley-Georgetown 500 KV transmission line.



1 The point is, now I read this again,
2 this is as you put it I suppose okay but you put it
3 as "in Hydro's" whereas it is the Ontario Hydro
4 Bradley-Georgetown right-of-way report, but not
5 prepared by Hydro, as I say, but prepared by the
6 Environmental Board - just to clear thatpoint.

7 Insofar as the terms of reference
8 being expanded to include the years before 1983,
9 we will enquire into this. This of course would mean
10 that the enquiries and hearings undertaken by the
11 Ontario Energy Board which undertook the study of this
12 period, that these would - well, I am not sure, not
13 being a legalistic type, and we don't have our counsel
14 with us unfortunately this evening, but let me take
15 this question under advisement at this point and since
16 you have raised it and it has been raised in other
17 places, we will enquire and see what the score is.

18 Up to now representations have been
19 made, as a matter of fact, not through the Commission
20 but directly to the Government and these have not
21 been agreed to. I think I am right in saying that,
22 am I not, I seem to have seen these. So I can't
23 really promise. Maybe the Government might think
24 that the program facing this Commission is of such
25 fantastic magnitude that maybe they might consider as



1 they have in other situations setting up another
2 group. I don't know, I can't anticipate, of course,
3 but all I can say is the questions will be taken
4 up, I can certainly assure you of that without
5 question.

6 I don't think I have any more points
7 but I am sure maybe George or Bob have, or Bob
8 Rosehart.

9 MR. McCAGUE: Mr. Hackman, is the
10 Grey County Hydro Corridor Committee a member of
11 Land Steering Committee?

12 MR. HACKMAN: We are independent.

13 MR. McCAGUE: During intermission
14 I think we would like to have the names of the members
15 of your organization that are not shown on this
16 submission.

17 You have made reference to compensation
18 and this has come up in a number of other submissions.
19 Would you anticipate making a formal presentation when
20 we get to the hearing on this point?

21 MR. HACKMAN: We hope so, on several
22 of these points.

23 MR. McCAGUE: As Arthur Porter has
24 said, this is a very comprehensive presentation. Mind
25 you, there is considerable repetition in many of them



1 and I guess that that is a good thing because it does
2 bring forward the fact that many people are concerned
3 with similar issues.

4 Again, saving food land is a most
5 important consideration. I wonder, Arthur and Bob,
6 are we going to receive from some group or a number
7 of groups collectively a more or less comprehensive
8 program on land use? Do you think - you were saying
9 maybe land or land use is maybe the major concern
10 and it is right to say that this has been emphasized
11 in a greater way than any other single item, I think,
12 Arthur.

13 THE CHAIRMAN: When we take them
14 altogether, this is certainly in the top four. As
15 a matter of fact, the top two were conservation which
16 appeared in more hearings than any other subject and
17 then land use, especially these concerns you have
18 raised would rank third and fourth, and these were
19 outstandingly much greater than any others, so, as
20 you say this is quite right.

21 MR. McCAGUE: I was wondering if
22 we probably will be hearing from the groups jointly
23 on this very broad issue in coming forward with some
24 pretty broad programs by way of a recommendation on
25 land use. I know you probably can't answer the question



1 now but we are wondering about this I think, Mr.
2 Hackman.

3 MR. COSTELLO: I think that has been
4 included in some of the requests for funding, as
5 you know. It is included not as a separate item
6 but it is contained in a lot of requests that we have
7 had.

8 THE CHAIRMAN: Okay, Mr. Oliver and
9 Mr. Hackman, we are most grateful for your participation.

10
11 -----
12
13
14
15
16
17
18
19
20
21
22
23
24
25



DPpb 1

an.22/76 2

2:1 3

THE CHAIRMAN: Is Mr. Ted Witworth

here?

SUBMISSION BY MR. TED WITWORTH.

4

MR. WITWORTH: Mr. Chairman, my name is

5

Ted Witworth. I am the Safety Consultant with the

6

Farm Safety Association.

7

The Farm Safety Association Incorporated

8

feels that there may be sufficient evidence of danger

9

from high voltage overhead power lines and while this

10

danger may not be significant to the safety of the

11

general public, the Associations feels that it may

12

pose a safety hazard for individuals who work near or

13

around these lines. While we are not prepared to

14

present a brief at this moment, we would like to go

15

on record by stating that we may present a brief at

16

a later date on behalf of the Farm Safety Association.

17

Respectfully submitted by the Farm

18

Safety Association.

19

THE CHAIRMAN: Thank you very much, Mr.

20

Witworth. We will look forward to receiving that brief.

21

Could you tell us approximately when you will have it

22

ready?

23

MR. WITWORTH: I would have to say at

24

this time it is a lot easier to find out information

25

on the value and the good that Hydro does but the side



2:2 1 effects and hazards, it is a different story; so I
2 really cannot give you any definite date.

3 THE CHAIRMAN: But we can expect it
4 anyhow?

5 MR. WITWORTH: Right.

6 THE CHAIRMAN: Thank you very much.

7 Mr. Tony McQuail?

8 SUBMISSION BY MR. TONY McQUAIL.

9 Mr. Chairman, Commissioners, ladies and
10 gentlemen.

11 If "The Future Begins Here" it should
12 not end with the Commission's report. There must be
13 some way to continue letting the people of Ontario
14 generate their future in accordance with their needs,
15 their desires and their beliefs. Safeguards must be
16 established to prevent the imposition of "arbitrary
17 judgements", upon the citizens of Ontario. When we
18 speak of the future we are really speaking of the
19 futures of a variety of communities with different
20 future aspirations.

21 If your Commission is "to recommend
22 to Government a planning philosophy and process by
23 which long range planning projects may be reviewed in
24 the best interest of the public," You must recognize
25 that the "public" is a diverse group with no one
"best interest". Your Commission must suggest a



2:3

1 planning process which can either reconcile varying
2 interests or at least establish whose interests must
3 take priority. It is to this concern that I shall
4 address myself.

5 In any decision or choice there are
6 costs and benefits. When one individual or one
7 community receives both the costs and the benefits
8 of an action there is a great likelihood that the
9 decisions regarding that action will be well considered
10 provided both the benefits and the costs are clearly
11 perceived and evaluated. When one individual or one
12 community receives the benefit of an action and
13 another individual or community bears the costs there
14 is much reason to suspect that the decisions will be
15 less satisfactory and be based on a less complete
16 appreciation of its impact on society as a whole. This
17 has certainly been the case with environmental
18 pollution and is also evident in social and economic
19 interactions. In this situation the individuals or
20 communities will have different interests, the one with
21 maximizing the inbenefits, the other with minimizing
22 the incosts.

23 By what process can such differences be
24 reconciled? Recommending such a planning process for
25 future electrical development is one of the tasks of
your Commission and I believe it is of prime importance



2:4 1 to the future of Ontario and Ontarians.

2 If the power to make the final decisions
3 regarding development rests with those groups who
4 receive the benefits of development there will be
5 little incentive to reconcile their plans with those
6 who must bear the costs. To effectively institutionalize
7 a process which will require reconciliation between
8 those who benefit and those who don't, those groups
9 or communities that bear the cost of development must
10 make the final decision to approve or reject development.
11 Only if they have this power will their concerns and
12 their reservations be considered by the planners and
13 developers. Only if they have this power can a
14 satisfactory decision be made because only by such a
15 process will both the costs and the benefits clearly
16 figure in the decision making process. The developers
17 will look to the benefits but they must also consider
18 minimizing the social, environmental and economic costs
19 if their proposals are to be approved.

20 Such a process would also provide for
21 the situation where the varying interests are
22 irreconcilable. On that occasion the interests of those
23 who bear the costs should take priority over those who
24 benefit.

25 In this presentation I have spoken of
"those who bear the costs of development". By this



2:5

1 I do not mean those who arrange the financing of
2 development in the anticipation of increased assets
3 or repayment with interest. I have been referring to
4 those people whose land will be taken, whose
5 environment will be degraded, whose communities will
6 be altered and whose local economy will be disrupted
7 by the development. These people tend to be opposed
8 to development because they usually are incompletely
9 compensated for the costs they bear. By giving these
10 persons the final power to approve or reject development
11 it will ensure that the total cost of development
12 is weighed against the projected benefits. We might
13 also expect a more equitable distribution of the
14 benefits and costs of development which occur. Should
15 no community be willing to bear the costs of certain
16 types of development then despite the "desire" for
17 them their social costs are too high to justify their
18 implementation by the politically expedient move of
19 pushing development on regions of low population
20 density.

21 Let me finish with a personal plea which
22 I believe is true for many communities which will be
23 considered for future development. We may not be
24 experts in nuclear physics or the economics of power
25 corridors but we do know our communities in ways which
the "experts" cannot. We can perceive values which they



2:6

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

do not grasp. We know the work and the joys of our communities and our way of life. In determining our future we must call on the experts for their knowledge and their advice. If we differ from the experts it is they who are at fault for despite their knowledge and their expertise they have not convinced us that what they ask of us is what we know to be right for us. In the end the decision must lie with us if the future is to be ours and our communities are to be our own.

That was the end of my presentation but on reading it over I realize that I had not been very specific in making my suggestions so I added an "after word".

Your Commission is a step in public involvement but the public should also be involved in the planning of specific Hydro developments. If the public is to have an impact on the planning, people from the communities concerned must be involved at the very beginning of a new project. Their involvement must occur during the initial studies so that they can help plan rather than react to project proposals.

One approach would be to identify all those parties concerned over a particular development project through well publicized public hearings as soon as Hydro begins studying an area for a possible



2:7 1 project site. The final project proposal would be
2 developed by Hydro and Government in cooperation with
3 all the groups that had come forward at the public
4 meetings. The final plan should require the approval
5 of all parties.

6 Another approach might be to hold a
7 referendum in the communities affected by each major
8 Hydro development project. For this to be meaningful
9 the persons in the area should have ample information
10 on the potential consequences of development. This
11 would require ample time for studies, hearings,
12 discussion and deliberation before any vote was taken.

13 Both these methods would require time.
14 They would involve proposals-rethinking-alterations-
15 alternatives. They might lead to controversy and
16 perhaps conflict. I favour the first method because
17 for a proposal to be finalized it requires
18 cooperation among the parties involved and I believe
19 such a requirement is one of the best ways to ensure
20 that all parties are adequately represented. A
21 referendum may involve many types of power politicking -
22 To build consensus requires a thoughtful - considerate
23 approach.

24 Can we afford to spend this sort of
25 time in deliberation before we construct Hydro
facilities? Can we afford not to? The stakes in



2:8

1 present and future Hydro developments are very high.
2 We know we can live with what we have. Ontario is a
3 richer and more fortunate land than most on this globe.
4 Before we rush to become "richer" (as measured by our
5 energy production and consumption) we had best be sure
6 we preserve those riches which we find in our
7 communities and our land. If we do not we may find
8 ourselves with a radioactive touch of Midas.

9 Thank you.

10 THE CHAIRMAN: Thank you very much,
11 Tony, for what all of us agree is a highly scholarly
12 submission to this Commission.

13 The philosophies you have expounded
14 are I am sure those which many of us feel are really
15 worth striving for. You have done a considerable
16 amount of research in the presentation of this
17 submission and we feel, you know, and I am saying
18 this with very high sincerity that if people like you
19 are willing to come forward doing all the homework
20 that you have done then I believe that your hopes and
21 the goals you are setting out for the Commission here
22 will go a long way to being satisfied; because this
23 is move one.

24 We have said from the beginning of
25 this Commission that we regard the educational
components as being absolutely essential and by that



2:9

1 I mean the Commission being educated and Ontario
2 Hydro being educated and the people, all of us,
3 to get a better understanding of what the issues are
4 and what the quality of life, the choice of lifestyle
5 that we are seeking and hope for at the end of the
6 century.

7 I really was quite moved when you
8 read this. I think it is a very, very fine effort.
9 Thank you very much.

10 George, do you have any specific
11 comments?

12 MR. McCAGUE: Not in particular, Arthur.
13 I agree partly with your comments on this submission.

14 MR. COSTELLO: I just have one point,
15 Arthur, that bothers me a little bit. Basically I
16 agree that we can live with what we have, but we have
17 a great number of unemployed and how do we handle that
18 problem?

19 MR. McQUAIL: I think, Mr. Costello,
20 we have been directed to look at food as energy, as
21 perhaps our basic and prime solar energy resource and
22 we have done an awful lot to replace food energy
23 with fossil fuel energy and non-renewable energies,
24 both in our food production and in our way of life.

25 I think perhaps in evaluating what
life is and the quality of life, we need to start



2:10

1 looking at how we can start using human energy, our
2 own energy, in ways which are productive, in ways
3 which are satisfying.

4 I think in too many instances as a
5 society we have made work and labour demeaning and
6 pursued the dollar as more significant than the
7 satisfaction of doing something as a member of society
8 and part of society.

9 So I am afraid that I find the belief
10 that either the gross national product or our ability
11 to produce energy as a real indication of the quality
12 of life is a misleading factor.

13 I am very concerned with something you
14 said at the Wingham meeting which indicated a belief
15 in the trickle-down theory as a way in which by
16 continuing Ontario's expansion and growth this is a way
17 in which we can contribute to the development of the
18 under-developed countries.

19 I personally feel, and this is also
20 on having done some study on development at the
21 University of Guelph and certainly a great deal of
22 reading on my own, that development is not so much -
23 if we can grow and set an example, that is not the way
24 development will reach our less fortunate fellows on
25 this globe but by perhaps a greater appreciation of how
wealth has been exploited from the under-developed



2:11 1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

countries and perhaps realizing that we must look to a redistribution of the wealth that is rather than an attempt in an inflationary manner to generate greater wealth which we then will supposedly apportion.

The stand in this country between the rich and the poor is steadily increasing despite a great many programmes that were supposed to reduce that gap; and I am afraid that the gap between less rich nations and poor nations is also increasing at a rate which corresponds to our technological increases, so that if we are really concerned about our brother in foreign countries or at home, we would have to be very leary about the idea that by increasing our own personal wealth we will increase their wealth as well.

That would be our response to your question.

MR. COSTELLO: I don't know what I said at Wingham but I am not an adovate of the bigger and better. I have been in India and certainly the gap is unbelievable.

MR. McQUAIL: I know about India.

MR. McCAGUE: On the first page, you make this statement:

"Your Commission must suggest a planning process which can either reconcile



2:12

1

varying interests or at least establish

2

whose interests must take priority."

3

MR. McQUAIL: Do you want me to

4

elaborate on that?

5

MR. McCAGUE: Yes. You were at Wingham

6

and you know something of our approach at preliminary

7

meetings and we are certainly for this.

8

MR. McQUAIL: I guess the point I would

9

like to make when a project proposal comes forward,

10

industry by making that proposal and presenting it

11

has already had a very large section in determining

12

the decision making process, sort of setting out

13

criteria, and my concern is that those people who

14

will be affected by this decision, by that development

15

project, are the people whose concern should take

16

priority and I feel if this were the case you would

17

be hearing a lot of presentations you are hearing now

18

because you have already been reconciled to the

19

planning concept; but because decisions can be made

20

without consultation with the people who will be

21

affected by them, you create a great many conflicts

22

in society.

23

One of the things I see here, we have

24

a power plant at Bruce and a power corridor. When

25

Bruce was just in the initial conception stage, if we

had said, okay, what is this going to do if we put



2:13

1 a power station here and our power requirements are
2 in Kitchener or Waterloo or down in Toronto, we are
3 going to have to run power corridors and we start
4 thinking about that. Maybe we would have realized
5 that maybe it would have been better to put the power
6 station near the urban area and rather than pollute
7 Lake Huron with hot water, recycle the coolant water
8 from the reactor into the urban area, into the heating
9 system of the urban area. That would displace a lot
10 of the fossil fuels which we are concerned about and
11 also eliminate, into the heating system of the urban
12 area, save energy there. That would displace a lot
13 of fossil fuels which we are concerned about and also
14 electricity which is presently used as a heating source.

15 We would have reduced the need for
16 transmission corridors and maybe we would not have our
17 present concern. It is just because we have been
18 excluded from the decision-making process that we are
19 as concerned. I feel that if we are going to have to
20 bear the costs, let us at least have a say in whether
21 the decision goes through. That is what I was saying
22 about priorities, and I think that would make for much
23 better decisions in the long run. About energy, about
24 electricity, but, gentlemen, I am taking a way too long.

25 MR. McCAGUE: This is really what we
are searching for, tell us.



2:14 1 MR. McQUAIL: Okay, I believe that
2 a consensus method where, okay, when Bruce was
3 proposed a study should have been done at that point
4 in time to determine what its impacts might be and
5 the people who would have been affected, farmers
6 concerned about farmland; environmentalists who were
7 concerned about Lake Huron; anti-nuclear groups
8 concerned about nuclear radiation; these should all
9 have been brought into the decision-making process
10 at the initial stage and should have had a say in the
11 planning of Bruce. We should not be just reacting
12 to something that is already there. It is a very
13 messy way to go about determining things because Hydro
14 has already got its plans made up and we come along and
15 say we don't like that, but that is not a tidy way to
16 do it so we should have input at the very beginning.

17 I think for that input to be effective
18 we have to be able to say no because if we just come
19 forward with plans and suggestions to listen to, I am
20 not sure the decision-making process would be any
21 better.

22 THE CHAIRMAN: Thank you very much.
23 These talks you are giving to us at the end of course
24 are just tremendously important. The idea of district
25 heating using some of the energy to heat homes and
factories and so on and so forth as well as producing



2:15 1

electricity is certainly one of the areas being
2 researched at the present time in various parts of
3 the world. West Germany, I believe, is quite advanced.

4

This, ladies and gentlemen, what Tony
5 is suggesting is a way of optimizing the use of
6 dwindling resources of fossil fuels, sort of getting
7 the most out of them that one possibly can.

8

Thank you very much. I think the
9 approbation of your efforts was shown in the response
10 of the audience.

10

Denise Newell?

11

SUBMISSION BY MS. DENISE NEWELL.

12

13

Mr. Chairman, members of the Commission,
14 this is my first day back while I have got my voice,
15 so I hope it doesn't conk out - a tragedy for a woman.

15

16

Although I am a member of the Concerned
17 Farmers of United Townships, I am speaking tonight
18 as an independent citizen.

18

19

In spite of two years of hearings
19 Ontario Hydro has failed to produce just cause for its
20 determination to use the controversial southern route
21 of the Bruce to Georgetown 500 kv transmission corridor.
22 Massive invasion by such a corridor of the last large
23 tracts of prime farmland left in Ontario indicates a
24 serious lack of judgement. Furthermore, there exists
25 the possibility of a generating station somewhere in

25



2:16

1 the Gooderich area. With the need to turn increas-
2 ingly to cheaper protein substitutes, a generating
3 station in the midst of Ontario's pollution sensitive
4 white bean farmland represents another grave planning
5 miscalculation.

6 Unfortunately, closer examination of
7 the situation reveals a decided tendency to duplicity
8 on the part of Ontario Hydro in presenting the facts
9 to the public. There exists, therefore, an urgent
10 need for a thorough enquiry into the internal
11 machinery of Ontario Hydro in order to determine just
12 why such mistakes are not detected and rectified. No
13 corporation involved with handling nuclear power can
14 be allowed to function in such a slipshod manner.
15 Emphasis should be placed on investigating such aspects
16 as inter-departmental communication and conflicts,
17 lines of responsibility; allotment of funds; definite
18 object of research; and so forth..

19 During the Cabin meeting on June the
20 11th, 1975, Mr. Timbrell promised two separate
21 delegations that an independent hearing would be
22 conducted into the routing of the Bradley to Georgetown
23 transmission corridor and generating station placements.
24 However, our understanding of the literature supplied
25 in the blue folder is that this Commission is not
empowered to deal with such specifics. In talking



2:17

1 with Mr. Timbrell last month I was advised that such
2 matters would be dealt with by bodies like the
3 Environmental Hearing Board or the Ontario Energy
4 Board.

5 This does not constitute the independent
6 hearing we were promised and have been waiting for for
7 over six months.

8 I would suggest the Commission also
9 examine the reasons for the long delay in the
10 development of cheap, safe, reliable forms of energy
11 such as solar, wind and geothermal particularly from
12 four points of view.

13 1. The token funding such research
14 receives.

15 2. The competition such an industry
16 would represent to the financial investment of the
17 presently established and politically influential
18 energy industries.

19 3. The effect on such a new industry
20 of Ontario's goal to develop uranium as a profitable
21 export commodity.

22 4. The accumulative repressing effect
23 these influences are having on the development of new
24 forms of energy.

25 The potential for utilising uranium
is enormous and the day is not far off when we will be



2:18 1 able to handle this safely. By then, however, because
2 of advances in other fields of science, it will be
3 needed for many uses other than as a source of energy
4 in generating stations. The field of medicine and
5 exploration of outer space are but two examples.

6 I would suggest we consider the
7 responsibility of restricting the amount of uranium
8 which is mined each year in order that its benefits
9 be shared between and among the generations. Nor can
10 we afford to ignore the penalties of allowing Ontario
11 Hydro to become involved with uranium before these
12 masters of technology can safely handle it. Careful,
13 detailed records must be kept of the student^s at St.
14 Mary's school at Port Hope for the next ten to twenty
15 years to determine the incidence of leukemia and other
16 cancer related diseases among them as well as the
17 incidence of major birth defects occurring in their
18 offspring.

19 Because of the characteristics of
20 uranium I feel that the Provincial and Federal
21 Governments must be held responsible in perpetuity
22 for all adverse human and environmental conditions
23 resulting from unwise decisions involving the use of
24 uranium.

25 Undeveloped countries have been watching
with great interest the manoeuvres of the oil-producing



2:19

1 nations and have not missed the fact that these
2 nations have successfully and repeatedly increased
3 the cost of their raw material and restricted its
4 sale. There is every reason to expect undeveloped
5 countries who so desperately need funds to nationalize
6 their own raw materials and follow the example of the
7 OPEC nations. This affects such raw material as
8 copper.

9 In short, Ontario Hydro's expansion
10 plans could gradually become so prohibitively expensive
11 that after investing billions of dollars they would
12 have to be abandoned.

13 In addition, I feel the Commission
14 should consider the influence Canada's uranium policy
15 has on the long range plans of Ontario Hydro. On
16 September the 5th, 1974, the Honorable Donald S.
17 MacDonald, then Ministry of Energy, Mines and
18 Resources outlined Canada's uranium policy and stated
19 that, and I quote "unless specific exemption is
20 granted by the regulating agencies uranium will be
21 required to be exported in the most advanced form
22 possible in Canada."

23 He is further reported to have added
24 that uranium would be in the form of fabricated
25 nuclear fuel, enriched uranium, or, for the U.S.
market, electricity. With roughly 80% of Canada's



2:20

1 uranium located in Ontario this is a very significant
2 statement. To our south lies a country of 214 million
3 people, with a serious energy crisis, whose attitude
4 towards Canada to supply raw material and energy
5 has recently become abundantly clear. In connection
6 with Ontario Hydro's massive expansion plan this
7 Commission should examine the terms of the Northeast
8 Power Coordinating Council and the minutes of its
9 meetings with a view to determining the vulnerability
10 of Ontario Hydro to American influence because of the
11 close inter-relationship over a prolonged period of
12 time that Ontario Hydro has had with American Utility
13 companies.

14 Thank you.

15 THE CHAIRMAN: Thank you very much
16 Denise. We don't seem to have a copy - is that your
17 only copy?

18 MS. NEWELL: Yes, it is. I could mail
19 you one.

20 THE CHAIRMAN: Could you? I think it
21 is most important that you should. Some of this,
22 obviously, has gone on the record and certainly we
23 are very grateful. You have raised a very large
24 number of questions, many of them very important
25 questions, such as export policy, such as the
possibilities of alternative forms of energy, such



2:21

1 as some of the problems that have been cropping up
2 at Port Hope. Of course, these are well outside the
3 Terms of Reference of this Commission, but I think
4 you are using these as examples of problems related
5 to radiation hazards which may crop up or perhaps
6 might in connection with a nuclear power station.

7 Since I was a erstwhile physicist, I
8 did most of my university work in physics, there is
9 perhaps, and I make this comment off the record, it is
10 relating to the Port Hope problem that perhaps is not
11 fully realized, and it is this, that the Atomic Energy
12 Control Board of Canada one feels is a very, very
13 responsible body obviously not only responsible to the
14 people of Canada but it is also responsible to ^{the} people
15 of the world and in fact Canada is a member of a world-
16 wide organization which looks into the maintenance of
17 adequate standards.

18 Now you might say, why did Port Hope
19 crop up. The reason is quite simply this, that as time
20 goes on the methods of detecting radiation improved
21 enormously so that now one is detecting levels 100 or
22 1,000 times less than one could detect twenty or thirty
23 years ago when this stuff was actually deposited,
24 perhaps, when it was put into dumps and so on. That
25 is one of the things we are going to see continually
as science develops, we will see the hazards such as



2:22

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

these arising and therefore one has got to look
far beyond present levels of measurement in
anticipation so all I think one can say in this case
is that perhaps the Control Board acted in good faith
at that time but in hindsight, now, we see, with
better methods of detection and so on, that this is
the situation and I think you raising this point,
this is helping in the educational mode that we are
talking about.



3.1
/mb

1 As I said before, you raised so many interesting
2 points that without your brief in front of us it is
3 a bit difficult to comment meaningfully.

4 I don't know whether you have any
5 specific points, George, I saw you writing quite a
6 bit.

7 MR. McCAGUE: I was making a note
8 because we did not have anything in front of us. I
9 haven't anything in particular other than what you
10 talked on.

11 DOCTOR ROSEHART: When you talk about
12 the southern 500 kv route, this is the so-called
13 second line out of Bruce or the first one?

14 MS. NEWELL: This is the one we are
15 all objecting to here.

16 DOCTOR ROSEHART: The second one or
17 the first one?

18 MS. NEWELL: The second one. These
19 things become known by so many names that after a
20 while you hardly know what you are talking about.

21 THE CHAIRMAN: Thank you very much,
22 Denise, for a very well presented submission.

23 I understand that Mr. Campbell who
24 had a submission ready for Wingham has now arrived
25 here and perhaps you would like to come forward now,



3.2.

1 Mr. Campbell. Mr. Campbell represents the Bruce
2 County South Planning Department.

3 SUBMISSION BY MR. CAMPBELL:

4 Doctor Porter and Members of the
5 Commission and Ladies and Gentlemen.

6 I have sort of covered the waterfront
7 in my brief and as a result in a lot of areas I have
8 just scratched the surface, I am sure.

9 There is within our planning area,
10 that is Bruce County South, a good illustration of the
11 effect that a large electric power development can
12 have on a small community. A power complex BNPD,
13 whose employment has grown to 7400 so far, has been
14 imposed on a community of 10 inner municipalities;
15 a collection of towns; villages and townships whose
16 combined population at the beginning of the development
17 was only 13,000. Within seven years this has increased
18 to 21,000. Possibly because the full extent of the
19 hydro development became evidence only as events
20 gradually unfolded, no advanced studies of the impact
21 of the development were carried out, to my knowledge.
22 As a result, the main burden of housing the workers
23 and employees fell on the small municipalities, whose
24 services and facilities were not adequate to cope with
25 the sudden influx. Needless to say, planning problems



3.3.

1 occurred, as well as financial and other problems.

2 Although grants were provided to
3 municipalities in lieu of taxes, these were grossly
4 inadequate to cope with the costs incurred. I believe
5 the grant was \$100,000 a year to all ten municipalities
6 combined. It was not until 1973, five years after the
7 development commenced in 1968, that an impact study
8 was undertaken by Ontario Hydro; and changes in the
9 grant system were not made until 1975. The Ministry
10 of Housing was equally slow to act. Although
11 considered for inclusion within the Housing Action
12 Program for a year previously, I might say also at the
13 suggestion of the staff of the Ministry of Housing,
14 too, in 1975 we were informed that a Municipal
15 Housing Policy Study was to be offered as an
16 alternative. This study is now underway. That is
17 a different study, not with a view of actually
18 providing much money for an interest structure or
19 other housing projects but simply to determine housing
20 policies for the municipalities, so it is not the
21 same sort of study.

22 Before any other large-scale hydro
23 development is started in a rural area, an impact
24 study and an independent environmental study should
25 be conducted; housing should be planned ahead; and



1 the necessary finances and services should be
2 established before construction is approved.

3 The Bruce Nuclear Power Development
4 has been a mixed blessing to the area. It should
5 be acknowledged that it has given a net boost to the
6 economy, I should say a great boost, I suppose, and
7 there are few municipal councillors in the Bruce
8 South area who wish that it had not occurred. In fact,
9 many are looking forward to construction continuing
10 relatively indefinitely, banking on eventual
11 materialization of the rumoured Bruce Generating
12 Station "C" and Bruce GS "D". That is No. 3 and
13 No. 4. This expectation is strengthened by the
14 increasing opposition to establishment of new
15 hydro corridors and nuclear sites in Southern Ontario,
16 as evidenced by many of the briefs presented to this
17 Commission. Additional nuclear plants at Douglas
18 Point, although possibly compounding certain
19 environmental effects, could be better absorbed in
20 terms of municipal impact on original development
21 since construction employment levels would be mainly
22 sustained rather than increased.

23 BNPD can undoubtedly be credited for
24 improvements in local roads; new community facilities
25 such as shools and community centres, that is indirectly;



3.5

1 more motels; better restaurants; increased commercial
2 facilities and more employment opportunities
3 especially.

4 The detrimental effects would include
5 more difficulties for established businesses to compete
6 for workers; increased cost of living, especially
7 housing; inability to attract other industries, so
8 far; a decline in tourism; increased social problems,
9 and I might add also friction between the original
10 residents and the newer residents; and more land-use
11 conflicts. Some of these detrimental effects will,
12 undoubtedly, be overcome in time, some of the social
13 ones in particular. It is felt by some that the
14 hydro development will eventually result in other
15 industries being attracted to the area. That is
16 another possible long term benefit. In fact, it is
17 rumoured that a large industry has optioned several
18 farms along Highway 21. The farms have been optioned,
19 it is just a question of who has optioned them and
20 whether they will do anything with them. It is
21 generally agreed that the County will never be the
22 same, that the rural character of the Lakeshore area
23 has been transformed.

24 The heavy water development has resulted
25 in an unexpected benefit which is not generally
recognized. It has resulted in the creation of a new



3.6

1 1500 acre provincial park, MacGregor Point, while at
2 the same time Inverhuron Park will remain open to
3 all but camping. Of course, camping was possibly
4 80% of the activity. BNPD and the MacGregor Point
5 area were the last large areas along the Lake
6 Huron shoreline in this region which had not
7 already been developed in cottage subdivisions.
8 Ten years later these areas would not likely have been
9 available. In view of the obvious stake the province
10 has in reserving large areas of the lakeshore for
11 various park and industrial uses, as demonstrated in
12 this one area, it is difficult to understand why the
13 province has prepared no plan for Great Lakes shoreline
14 land allocations. Neither are such plans in the
15 offing. There is a little study of Great Lakes
16 access, but that is a very general study. This would
17 be understandable if no economic or population growth
18 were expected in the province; but as the Commission
19 Chairman, at the Wingham meeting, that is, I believe
20 he was quoting Doctor Porter, has indicated this is
21 not the case. The population of the province is
22 expected to increase by 7 million in the next 25
23 years, which is about twice the amount of increase
24 over the last 25 years. This is a long way from zero
25 population growth.



1 The guidelines of the Atomic Energy
2 Control Board for a population density not exceeding
3 20 persons per square mile within five miles of a
4 heavy water plant are exceeded at present and the
5 restricted area policies permit limited additional
6 residential and resort residential development. The
7 development restrictions resulting from the heavy
8 water plant have not been as severe as expected and
9 this probably reflects a confidence in the ability
10 of Hydro to control potential hydrogen sulphide
11 leaks. Complaints of odours were prevalent a few
12 years ago, but such small leaks seem to have been
13 brought under control. I have actually never detected
14 any odour in all the travels I have made through the
15 area. Although the Hydro development has created
16 additional land-use controls in the immediate area
17 and an increased need for planning controls beyond,
18 very little, if any, planning control at the local,
19 regional or provincial level is exerted over the
20 hydro development itself or the by-products thereof,
21 such as gravel pits on construction sites which have
22 been scouring the scenic Algonquin Bluffs overlooking
23 Lake Huron.

24 Also, when the BNPD site was first
25 begun there was a policy of sort of leveling all the



3.8 1 vegetation providing maximum storage area whereas
2 they could have preserved a little buffer strip
3 instead of waiting until it was all over.

4 Hydro transmission corridors, however,
5 have come under greater scrutiny in recent years and
6 the process undertaken by Ontario Hydro in determining
7 the Bradley Junction-Georgetown route, including
8 public participation, was quite comprehensive in
9 my view. It did not meet all the criteria, I
10 suppose. One might have wished that similar
11 exercises had been undertaken in establishing the
12 second Bruce Generating Station Bradley route and the
13 Bruce Generating Station Owen Sound route. I could
14 also add the Bradley-Wingham route. There is a little
15 hamlet called Chepstow and the transmission lines
16 go right at the edge of the hamlet. In the
17 Bradley-Georgetown route the hamlets were avoided.
18 All the settlements were in no-go areas. Perhaps
19 a second corridor east from Bruce Generating
20 Station could have been avoided, that is from
21 Bruce G.S. to Bradley, there are two corridors going
22 east and they are only a few miles apart. The
23 botannically significant Glamsig Bog could have been
24 preserved in its entirety. Originally Hydro would
25 have gone right through the middle of it if it had



Campbell

1 not been for the Federation of Ontario Naturalists,
2 I believe. South Bruce is now traversed by three
3 major hydro transmission corridors. A planning
4 board has incorporated a policy in the official plan
5 to the effect that any future major transmission
6 lines, if there are any, should be established
7 adjacent to existing corridors. Whereas transmission
8 lines remove only the small area occupied by the
9 tower bases from agricultural uses, large
10 acreages are removed from forestry and
11 conservation when these lines pass through
12 wooded areas. The corridor is usually through
13 the middle of a Concession, where possible, to
14 avoid splitting properties. This is logical but
15 this means that the rear of the farm properties
16 where the wood lot is usually located is the
17 area most affected that is unless the line is
18 going in the direction where it goes parallel to
19 the lot line, length-wise. This problem also
20 illustrates the need to limit the length of
21 transmission lines as much as possible. Another
22 emerging problem is that of the effects of the
23 electrical field created by high-voltage
24 transmission lines on those working on the land
25 below. I understand that there are even leakages



3.10

1 if a tractor happens to be under one of the
2 transmission lines, they are controlled by air
3 and the owner of the tractor is notified. To
4 minimize this problem would mean concentrating
5 generating stations along the western part of the
6 Lake Ontario shoreline and heavily populated
7 areas, which is also not desirable.

8 For these reasons, as well as others,
9 it becomes imperative that sources of power
10 other than nuclear plants and fossil fuel plants
11 should be developed as soon as possible and that
12 the per capita use of electrical energy be reduced.
13 At the present time the per capita use is still
14 increasing. The heating of homes through solar
15 energy offers one possibility. Governments are
16 not providing enough encouragement to construction
17 of solar-heated homes. Perhaps the 22% increase
18 in hydro rates in 1976 will help reduce consumption.
19 It may not, however, do enough to encourage
20 Ontario Hydro to economize. It would appear that
21 nuclear power production will be considerably more
22 expensive than had been expected. The number
23 of construction workers at BNPD at present is at
24 the level that had been expected at the peak of
25 construction in 1978, and permanent employment at



BNPD, now projected to be 3,000, is 50% higher than was predicted a year ago. I might say that that figure may be obsolete by an announcement just a week ago, that all of 1,000 permanent employees, as I understand it, this year, and that of course won't include the permanent employees at Bruce G.S."B" which will only get under construction this year. Wage levels and benefits at BNPD are considered exorbitant by Bruce County standards for comparable jobs, and reports of soft working conditions are numerous. The cost of heavy water must also be affected by the cost of re-locating a provincial park and the acquisition of various affected properties and buffer areas. Hydro is acquiring various properties within a five mile radius of the heavy water plant.

Of long-term concern is the disposal of radioactive waste, obsolescence of equipment through accumulated radioactivity, the heating of lake water, the possibility of accidental spills and leaks, the supply of uranium, and alienation of lakeshore lands. In view of all the problems related to the generation of nuclear power, it is difficult to see how the establishment of such plants for the export of electric power could even



3.12 1 be considered.

2 The Bruce Nuclear Power Development
3 is doing a lot for Bruce County but one such
4 centre in a county would seem to be enough of a good
5 thing. Maybe one centre in each county would be
6 too much, I don't know. The string of power
7 plants proposed by Hydro along Lake Ontario east of
8 Toronto to meet the needs of only the next 20
9 years should be alarming to anyone concerned
10 with the environment and esthetics.

11 It is encouraging to see that steps
12 are being taken to obtain more involvement by
13 elective officials and the public in energy
14 decisions as a result of formation of this
15 Commission and the Select Committee of the
16 Legislature. While Ontario Hydro has done a good
17 job of keeping ahead of energy demands, it is
18 apparent that the past trend of increased per
19 capita energy consumption needs to be reversed
20 (that is electrical energy), and more research is
21 needed to devise more economical sources of
22 energy. While the solicitation of briefs from
23 groups and individuals is a useful exercise for
24 the Commission, for various volunteer groups to
25 try to become involved in detailed, uncoordinated



1 research for the Commission would seem to me to
2 be an uneconomical use of resources.

3 THE CHAIRMAN: Thank you very much,
4 Mr. Campbell. The last point you raised about the
5 uncoordinated research for the Commission, of course,
6 is well taken. I am sure you have heard of the
7 steps being taken to provide a measure of funding
8 for various of the public interest groups who
9 have put forward proposals, some of which relate
10 to research activities and others which relate to
11 the preparation of briefs and so on.

12 It is not considered by the
13 Commission to be a good idea to have uncoordinated
14 research. This, of course, would not help at all
15 and very often one finds that a great deal of work
16 is being done anyhow and repetition of the same
17 thing, as you point out, is uneconomical use of
18 resources.

19 You refer to the population of the
20 province and comment on remarks due to myself. I
21 think this needs some explanation. When I gave the
22 illustrated lectures in various centres I did as a
23 matter of fact show a population projection for
24 Ontario but this was not due to me by any means.
25 It was taken from Statistics Canada study of Ontario's



3.14 1 population growth and it sort of anticipated or
2 predicted that by the end of the century the
3 province's population, which is now about 8 million
4 might be as much as 12 million or even as much as
5 14 million.

6 In the report of the Statistics
7 Canada Group they suggested that the 12 million which
8 is a 50% increase would be perhaps at the lowest
9 level. This of course is due to the fertility index
10 not changing much from what it is at present and
11 from the continuing immigration into this province
12 from other provinces and from abroad; so this is
13 the point.

14 As you say, it is very, very unlikely
15 that the population will not continue to grow to
16 the end of the century. Indeed, the probability
17 is extremely high.

18 I did not have any more points.
19 George? Bob?

20 Thank you very much, Mr. Campbell,
21 for this presentation.

22 Perhaps we might break for coffee and
23 resume at ten to ten.

24 ---SHORT RECESS
25 - - - -



---Upon Resuming:

THE CHAIRMAN: Ladies and gentlemen, may we reconvene, please? One or two people have mentioned that the weather conditions are deteriorating especially in some of the areas a bit distant from here. I have been asked to announce two things, one, if any of you feel a bit apprehensive about it, although we would hate to lose you from the meeting, please don't hesitate to leave if you think that would be appropriate.

The second thing is, we will try to finish at about 11:15 but of course we are quite prepared, we three, to stay as long as anybody wants to stay and discuss and bring ideas before us.

So on that note, I think the next on my list is Mr. William Benson.

SUBMISSION BY MR . WILLIAM BENSON:

MR. BENSON: I am representing the Wellington Federation of Agriculture this evening.

The Wellington Federation of Agriculture welcomes this opportunity to outline to the Commission what, on a preliminary analysis, appear to the Federation to be some of the major issues, especially the loss of prime farmland which will affect not only farmers, but every member of

No.4
DP.kr
EPP



4.2

1 society. We understand that the Provincial Government
2 of Ontario has committed itself publicly to public
3 participation in the open planning process and
4 it is in this atmosphere that we present the views
5 of the Federation of Agriculture in Wellington
6 County to this independent Commission.

7 Farmers in Wellington County would
8 be directly affected by a second 500 K.V. line from
9 Bruce generating station to the Georgetown area and
10 also by a 500 K.V. line from Bruce to the Kitchener
11 area, that is if these lines are allowed to be built.
12 We note that both the above mentioned lines are
13 part of the Commission's terms of reference.

14 We sense, not only amongst farmers,
15 but in all of society, that the forecast by Ontario
16 Hydro of its future expansion plans is a matter of
17 deep public concern and therefore the challenge
18 before this Commission and the general public
19 cannot be taken lightly by any of us in Ontario. Therefore
20 we are hopeful that you will give the views in
21 this submission serious consideration and we trust
22 that it may in future be said of the Commission
23 that it served the people of Ontario well.

24 Interference with Farming Operations.

25 The cultivation of the land within
the tower corridors will be a problem. It will be



4.3 1 difficult to work in the fields with the large
2 machines in common use today. As a result it will
3 reduce the number of acres per hour accomplished
4 and thereby increase the cost of food produced,
5 and we are all aware of how very concerned consumers
6 are of the rising cost of food in recent years.

7 Actual construction of the lines
8 will cause considerable damage to the network of
9 underground drainage systems that farmers in this
10 rich farming area of Western Ontario have installed.
11 Repairs to these drains will be both difficult and
12 costly.

13 Compaction by heavy equipment
14 during construction can put land out of top production
15 for up to 15 years depending on the texture of
16 the agricultural soils involved. It has also
17 been proven that people and livestock can receive
18 electrical shocks working under high voltage
19 transmission lines.

20 We can definitely conclude that
21 building transmission lines across agricultural
22 land will make farming operations both inefficient
23 and dangerous.

24 A Liability to Farmers.

25 Farmers are liable for damage to
hydro towers as they work around them. With the



4.4 1 growing numbers of 150 to 250 H.P. tractors and
2 30 ft. implements in use in this part of Western
3 Ontario, damage could be done to towers that
4 would make the farmer liable for a lawsuit, not
5 only by Ontario Hydro but also by those industries
6 whose power was cut off, a lawsuit that could
7 involve millions of dollars.

8 Ontario Hydro should be required to
9 assume these unreasonable liabilities as the power
10 lines are forced on the farmer in the first place.

11 Land Use Priorities

12 The transmission corridors themselves
13 will consume food land, but the generating stations
14 and the associated developments that they attract will
15 consume far more! The generating stations are
16 a definite stimulus to regional development.

17 There is a public attitude of concern
18 and alarm about the large acreages of prime farmland
19 being lost to other irreversible uses and the
20 threatened food shortage directly associated with it.
21 We now quote the Land Use Policy of the Ontario
22 Institute of Agrologists issued in June 1975.

23 " During the period 1966-1971 an average of
24 200,000 acres of improved farmland (Class 1, 2, 3,
25 and 4 land which was in production) per year went
out of food production and the trend continues.



4.5
1 At this rate all of the present foodland in
2 Southern Ontario would be out of production by the
3 year 2025 A.D. that date being only 50 years down
4 the road! Ontario's population is placed at
5 some 7.7 millions. Conservative estimates suggest
6 that this will increase to 12 million people by the
7 year 2000 A.D. This would mean that even if no
8 further improved land were lost to urbanisation from
9 today's date, it will be difficult for Ontario's
10 farmers to produce enough food to satisfy the Ontario
11 population 25 years from now!

12 The above projection is indeed a
13 sobering thought for us all! With a world that
14 presently has 500 million people in a state of
15 starvation, we must conclude that it is morally
16 wrong to exchange our productive foodlands for
17 other irreversible uses. If Ontario is thrown into
18 an import position from a food point of view, we
19 might well ask where food will be imported from,
20 and at what price?

21 Class 1 and 2 land and Special
22 Croplands must be reserved for food production
23 and any departure from this policy should require
24 the most searching public debate and scrutiny and
25 at the same time we should not lose site of the very
possible need of utilizing Class 3 and 4 lands for



4.6

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

for future food production, however, it must be emphasized that the yields from poorer classes of land are substantially lower, resulting in much higher feed costs. For example, with the same inputs, an acre of Class 4 land yields only 44 percent as much grain corn as Class 1 land. In the production of meat, poultry and dairy products, feed costs are the greatest input, therefore, a doubling of feed costs must be reflected in substantially higher food prices for the consumer.

Hydro generating stations should not be placed in locations which will result in Prime Agricultural Land being taken out of food production either by the generating station itself or by associated developments or transmission lines. Stated briefly, they should be located on the poorer classes of foodland (i.e. in Northern Ontario). Multi-use corridors should be developed so that hydro lines, pipelines, highways et cetera, would be accomodated within them.

Since the siting of generating stations is a definite stimulus to regional development, Ontario Hydro and its planning should be directly accountable to the Provincial Government and a comprehensive land use plan of that Government.

These comments are respectfully



submitted, Wellington Federation of Agriculture.

THE CHAIRMAN: Thank you very much,
Mr. Benson.

As a matter of fact, George, in various of our meetings the number of 26 acres an hour came up of agricultural land being used up but there was never any sort of firm evidence where the evidence came from. You would be the first to tell us where this information is, and as a matter of fact, the figures you have quoted here works out to about 25, so 26 is not too far off, but that obviously is 26, George, applied to 12 to 13 years ago.

MR. McCAGUE: The Ontario Federation of Agriculture are using that figure today, I think, for the 1956 to 1971 period.

THE CHAIRMAN: I have no other points for clarification, do you George?

MR. McCAGUE: The point of liability that you referred to, an inquiry has gone out with respect to this and we hope to get some definite information on it. It is a point that has not come up frequently but has been raised before and we are seeking information with respect to the matter on the question of liability.

MR. BENSON: I might point out that our Property Department in Toronto of the Ontario



4.8 1 Federation of Agriculture have checked it out
2 thoroughly and we can back up what we were saying
3 on this point.

4 MR. McCAGUE: You were saying if there
5 was any damage to power, et cetera, where any public
6 liability might come into play, that the farmer
7 is liable?

8 MR. BENSON: He could be held
9 liable.

10 MR. McCAGUE: The farmer, Mr. Benson,
11 in Wellington County, which is a county I know
12 pretty well, I farmed in it for quite a few years,
13 the reliability on electric power and the use of it
14 on the farms is so vital and I know that every farmer
15 agrees with this, is one of the maybe major labour-
16 saving services in agriculture. However, you
17 suggested a line that might accomodate multi-
18 corridors, gas lines, hydro, et cetera. Do you think
19 that this is certainly one of the means of conserving
20 land and is a practical approach to conservation?

21 MR. BENSON: I might point out, Mr.
22 McCague, that you had mentioned earlier that
23 possibly an organization in Ontario might be coming
24 forward with a comprehensive land use plan and those
25 of the Resource Development Committee of the
OFA in Toronto hope to bring forth a comprehensive



4.9

1 plan with regards to land use and the relation to
2 long term planning of Ontario Hydro and how that
3 long term planning should be accountable to the
4 Provincial Government and a comprehensive land
5 use plan of that Government; and multi-use corridors
6 are just one of the points which we will be making.

7 MR. COSTELLO: There are just
8 one or two points, I am not for or against multi-use
9 corridors. If you have a multi-use corridor right
10 through the centre of your farm that may cause
11 separation of both parts of your farm. Whoever wrote
12 this article more or less argued against the use of
13 multi-use corridors in some areas.

14 MR. BENSON: There is no doubt
15 if multi-use corridors are established they are going
16 to go through foodland but the back-ups are there.

17 MR. COSTELLO: I guess we have to
18 look into the cost and the benefits.

19 MR. BENSON: We will look at it on the
20 basis that multi-use corridors are far better in allow-
21 ing Hydro to go willy-nilly in their planning and
22 creating a spider web of hydro corridors right
23 across Ontario, as their long term plan would appear
24 to suggest at this point.

25 DR. ROSEHART: In your brief you
make the comment that the siting of generating



4.10 1 stations is a definite stimulus to regional
2 development. Tonight we heard, I believe, from
3 Bruce County, the Planning Department, and they said
4 they were having trouble attracting industry to
5 Bruce County. I assume they want industry.

6 Do you have any evidence to indicate
7 that siting of generating stations is a stimulus
8 to regional development, except perhaps during the
9 construction stages?

10 MR. BENSON: We could use an example
11 of Nanticoke which is not a nuclear plant, which
12 is a generating station. Down there I understand
13 at this point there will be something like 12,000
14 acres used up for a steel plant; something like
15 9,000 more acres used up by an oil refinery; the
16 establishment of two satellite cities in order to
17 house the people that will work at these plants. That
18 is one example of stimulus to regional development
19 and I would not doubt for one minute that there
20 is a definite stimulus to development up in Bruce.
21 If you talk to the farmers up in Bruce they are very
22 concerned about it and it is a serious problem. I
23 don't doubt for one moment that there won't be a
24 large influx of industry there in the coming
25 years. I can't agree with some of the statements
the
that were made by / Bruce Planning Board, as a farmer.



4.11 1

THE CHAIRMAN: Thank you very much,
Mr. Benson, this map of course behind you is
illustrating some of the points that you are
making. Incidentally, we are very grateful for this
summary you have also provided with the submission.
I am sure, ladies and gentlemen, we are very
appreciative of Mr. Benson and his colleagues, I
think Mr. Moore too was involved, in providing a
map such as this because it does put the problem
in some perspective.

10

11

MR. BENSON: You can give the credit
to the University of Guelph. That is where we
obtained the information.

12

13

14

THE CHAIRMAN: Thank you very much,
Mr. Benson.

15

16

Might we hear from Mr. Eldon Vines.

17

MR. ELDON VINES: Mr. Porter and
Commissioners---

18

19

THE CHAIRMAN: Do we have a copy of
this?

20

21

MR. VINES: I submitted six copies.

22

MR. McCAGUE: Did you have a
submission at Wingham?

23

24

MR. VINES: Yes.

25

SUBMISSION BY MR. ELDON VINES:

There are two things I would like,

two points cleared up, maybe for the public in general.



4.12 1 I think one is, I would like the Commission to
2 explain these hearings. A lot of people think it
3 doesn't take effect until 1983. I have been asked
4 this question many times, what are we doing, we
5 are wasting our time if it does not take effect until
6 1983, what is this hearing all about?

7 THE CHAIRMAN: I will try. The
8 terms of reference of the Commission certainly
9 relate to the period 1983 to 1993 and beyond. And
10 as I mentioned earlier during the meeting, the
11 Ontario Energy Board considered it long before we
12 were ever even thought of, the period 1973 to 1983,
13 and made recommendations to the Government. On the
14 basis of those recommendations, Ontario Hydro is
15 pursuing a program.

16 Now, you say 1983, well of course
17 that is eight years ahead. The point is, Mr. Vines,
18 in planning a major facility, lead times of eight,
19 nine, ten to 12 years are needed and therefore the
20 Government will have to take certain decisions, some
21 within the life of this Commission; and the
22 Commission has been asked to recommend on the basis
23 of need, as you know, on the projects which are
24 shown on the chart there and on the longer term
25 period the Government is seeking from the Commission,
guidelines for the decision-making process.



4.13 1 This Commission will not recommend
2 that a particular generating site be put in a
3 particular place or that a particular transmission
4 line will be put in a particular location. This
5 Commission has been charged with recommending on
6 processes of decision-making whereby the public
7 can participate in these. It mentions specifically
8 at the top of the chart framework for the decision-
9 making process.

10 This Commission will also have the
11 responsibility of recommending relating to
12 various types of generation like nuclear generation
13 and fossil fuels and so on based on the views
14 provided by the public across the province.

15 At this stage of the inquiry,
16 the Commission is merely concerned with the
17 identification of issues and concerns. It is not
18 at this time in debate at least as we are doing
19 this evening. We are getting these submissions.
20 These are going to be classified, categorized, put
21 into a report which will be hopefully published
22 within a few weeks.

23 Now, I could of course go on for
24 a very long time explaining some of the terms of
25 reference. They are extremely complex in many ways
because the Commission has got to try to fit



4.14

1 electric power planning concepts to regional
2 planning concepts, that comes again into the terms
3 of reference. The Commission will not, I will
4 not say probably although certainly probably is
5 not an inappropriate term, come up with various
6 alternative schemes and scenarios which one might
7 say on this assumption or this set of assumptions
8 then perhaps this sort of operation or plan or
9 demand might be appropriate.

10 It will build up these on the
11 basis of the hearings which are to come and to
12 continue the hearings which are to come, the
13 information hearings followed by the debate issues
14 and hopefully, certainly within a period of two
15 years, and this is going to be a rather monumental
16 task, we will hope to come up at least with - well,
17 cover most of our terms of reference. That is our
18 objective and hopefully we will fulfill it.

19 I don't know whether, ladies and
20 gentlemen, I have explained for you the situation,
21 but that, as I say, could take a very long time to
22 go into much detail.

23 We are anxious at this time to hear
24 from you, as our report will show, which will be
25 out hopefully in five or six weeks. This will give
you an indication of whether we have identified



4.15

1 what you want us to identify so that at this
2 time the more we hear from you the better we will
3 do because that is the object of the exercise at
4 present.

5 MR. COSTELLO: I was talking to
6 Mr. Vines outside, Arthur, and I think part of
7 his concern is our so-called priority items.
8 Apparently a lot of people think that we are not
9 involved in anything until 1983. The priority
10 items which are the proposed North Channel
11 generating station; a second 500 K.V. line from Bruce,
12 this was talked about earlier tonight; a 400 K.V.
13 line supplied to Kitchener; another one from
14 Nanitcoke to London; and one from Ottawa to Cornwall
15 are within our terms of reference. We are to rule
16 on the need. It could happen that we would say
17 we don't believe there is a need or if we say there
18 is a need these projects will not go ahead at that
19 point. They are subject to public participation,
20 environmental assessment and all the rest of the
21 procedures. So we are involved in these specific
22 projects between now and 1983.

23 MR. VINES: I think the real
24 question in Wallace Township is are the Government
25 and Hydro really going to listen to you because
we went through hearings in Wallace Township that



4.16 1 have not meant a thing on the lagoon at Palmerston.
2 Our money was spent and your maoney was spent to
3 put these people through these hearings and they're
4 going ahead with it anyway and it was 100 percent
5 against it. They are going to go ahead with it
6 anyway, so what was the use of the hearing. This
7 is a question a lot of people are asking.

8 THE CHAIRMAN: That is a very
9 important question, of course, Mr. Vines, and let
10 us hope that we are hopefully going to have some
11 impact. I would say that up to now with the
12 feedback we have been getting especially from some
13 of the high schools and so on that they feel that
14 up to now we have engaged in an educational
15 exercise. We have heard frank discussion of these
16 problems. People have come to hear their neighbours
17 talk about them and the mere fact that that in
18 itself is happening is the first step, understanding
19 of the nature of the problem which can only come
20 about through sessions such as this.

21 So certainly, we have been starting
22 across the province certainly to listen. We have
23 been good listeners and hopefully you will think
24 the report, when we come out with our first one, will
25 reflect your concerns and perhaps concerns of people
in other parts of the province.



4.17 1 MR. VINES: I commend the Commission
2 with what they have done and what they have said
3 because the hearing board in Palmerston, and we are
4 getting away from the subject, but I'm just trying
5 to explain why we are dubious.

6 The hearing board in Palmerston, the
7 Chairman was always talking for lagoons, not caring
8 about prime agricultural land or anything else. He
9 was all for it. Well, it was obvious to us at that
10 point even that we were not going to change his
11 mind. When it was all over, he still was all for it.

12 MR. McCAGUE: Well, I don't know
13 whether it is misunderstanding but it has been
14 difficult, Arthur, to get the point across with respect
15 to the priority project^s/and I know some of you are
16 saying that these priority projects are so important.
17 I think it was said here today, was it not, that the
18 priority projects were a big part of the whole show,
19 really, and yet, Eldon, we cannot do anything beyond
20 our terms of reference and those terms of reference,
21 although it was suggested tonight, Arthur, that they
22 be expanded but still we don't know that they will
23 be by any means; we are bound by the terms of
24 reference.

25 Again, it was said here tonight that
the planning was not sufficiently far ahead to



1 influence what has taken place in the past.

4.18 2 We are listening to you particularly
3 with respect to 1983 and beyond and certainly our
4 recommendations, and they are nothing more than
5 recommendations that will go to government, what
6 they will do with them, we do not know; but we
7 are certainly listening intently and we are
8 conscientious about trying to put forward to the
9 Government these things as we see them. How they
10 will be dealt with, we don't know, but we do
11 feel that we can influence, you can influence, what
12 takes place from 1983 forward.

13 Had we been meeting, I don't know,
14 15 years ago that that Douglas Point thing was
15 looked at and considered, it's probably more than 15
16 years ago, had we been sitting here in a meeting
17 10 years before the Douglas Point and Bruce
18 program was envisaged then we might have influenced
19 that, just as you are talking about generating
20 stations further along Lake Huron.

21 Now these are in the discussion
22 stage. That is my impression and we can, with you,
23 in our recommendations influence what takes place
24 in the future with regard to siting.

25 Arthur Porter spoke about that map.
We have one in our office in Toronto, a file map,



4.19

1 and I wonder if very many people really appreciate
2 what the lines are doing that are coming from Lake
3 Huron across that good land and until you see the
4 map set up, and as you mentioned, it is most
5 commendable and I know everyone in this room is
6 quite familiar with it and as a farmer, I wonder
7 when we look at those green patches and various
8 coloured patches, we wonder why something is not
9 being established there as opposed to crossing good
10 farmland. You are raising the same question and it
11 seems like a mighty likely question to raise but
12 beyond looking at this and raising the question
13 of need, as the terms of reference stand, we can do
14 nothing yet. Is that right, Arthur?

15 THE CHAIRMAN: Yes.

16 MR. McCAGUE: Is that cleared up?

17 Maybe while this question is open it might be
18 a good time to have a bit of discussion on it if there
19 is misunderstanding.

20 THE CHAIRMAN: Well, of course.

21 MR. PAT DAUNT: Are you giving
22 us permission to ask questions on this now? We
23 have spoken with you on this point and have expressed
24 our concern about the matters of the priority. We
25 have expressed our opinion to you about these
priority projects, the North Channel generating



4.20

1 and the second transmission line and corridor
2 from Bruce, decision on these projects will affect
3 and could really preempt your Board with a lot
4 of its impact on the planning.

5 We feel they are very important
6 and I really feel unless they are handled properly,
7 and I'm beginning to feel that your terms of
8 reference, sir, are such that we people here
9 concerned about the Southern line could fall
10 between two stools and be left without anything,
11 without any real hearing.

12 We have been promised, once by the
13 Cabinet that we would have an independent hearing
14 on these lines. That was a definite promise, and
15 of course, Mr. Grossman's letter to the public that
16 was establishing your Commission mentioned certain
17 things.

18 Take for instance the second 500 K.V.
19 line out of Bruce, and before I talk about it, sir,
20 I understand that Bruce C and D are within your
21 terms of reference of approving those if they are
22 ever considered. Bruce A and B, permission has
23 been granted - well, Bruce A is well under
24 construction and Bruce B, permission has been
25 granted for it to be built so I would assume then
that Bruce C and D would be within your terms of



reference.

4.21 Now, corridor projects, the second K.V. line out of Bruce, the Commission would be requested to hear and report only on the need, and that is right from Mr. Grossman's letter fo March 13th, 1975. So you will be requested to make only one report on the need. Well, I submit, you have only one report on the need. Bruce B is there, you have got to give them a line to get it out. We have been told that time and time again by the ex-Minister of Energy, Mr. McKeough, you know, Bruce B is there, we can't lock it in, so that second K.V. line, I mean, ladies and gentlemen, you have no alternative except to say yes. So they have pre-empted to a degree your authority in a very important thing.

We are concerned about the routing of that line, you are right as far as that, and the routing of that line will be to establish a corridor, we have heard it again, our planners that that corridor could be expanded; so we feel that the location of that corridor is very, very important to Western Ontario, to agricultural Western Ontario, to the food of Canada. It seems right now that we are not going to get a body such as yours to look at that line because you are going



1 to have to say the need is there and that is all
2 you are going to be allowed to do.

3 If further public hearings should
4 be necessary to deal with specific aspects then
5 we will go to the Environmental Board or Energy
6 Board, so we have got a real problem here. We have
7 a promise that we would have an independent hearing
8 and now we are just wondering, Eldon was touching
9 around and getting to it, and Mrs. Newell really
10 crystalized it in my mind when she spoke here. So
11 I can see that we are in real trouble.

12 THE CHAIRMAN: Thank you very
13 much, Mr. Daunt. As I said earlier, we are just
14 collecting these concerns. They are certainly
15 concerns of this Commission right now and we felt
16 from a very early stage that there is in the priority
17 projects a real problem.

18 We will try to put it into
19 perspective after the information hearings. Right
20 now we have no information on any of these projects
21 whether they be priority projects or any other
22 project. This is the whole purpose of the information
23 hearings when perhaps the assumptions and bases
24 for these priority projects will be brought before
25 the Commission.

Now, as Bob Costello mentioned



1 previously, there is a time element involved. It may
2 be that at a given time there may be a requirement -
3 I'm not talking specifically of the location of any of
4 these projects but I understand in Ottawa there is
5 concern in the Ottawa region that they will not have
6 an adequate supply of electrical power by 1983
7 or thereabouts and this might lead to difficulties.

8 Now, the Commission has to assess
9 whether in their view that this is in fact the case.
10 In the event they say that there appears to be a
11 need by a given time, this doesn't mean that the
12 Government is committed in any way to a specific
13 location for a line.

14 Pat Daunt mentioned the new
15 Environmental Impact Assessment Act which was
16 passed within the, I suppose, last six months. The
17 implementation of this is still not clarified in the
18 Act. In other words, how the process has to be
19 carried out, but as we see it, and we can only
20 anticipate just as anybody else can what form this
21 will take, the public involvement within those
22 decisions relating to the location of any line
23 would begin at the very beginning.

24 In other words, if this Commission
25 said that in their view by a given date there
could be a need or there could not be a need, but if



4.24 1 they said there could be a need that would merely
2 start off perhaps by public participation in real
3 depth concerning the location of the line; and I'm
4 quite sure I have got that right. It is a pity
5 we did not have our legal counsel here because he
6 knows these Acts so much better than we do. We
7 rely on his knowledge, but I believe that is right.

8 DR. ROSEHART: That is essentially
9 correct. The new Environmental Assessment Board is
10 being designed at the present time, if for example,
11 the need ^{was shown} / for one these projects. It is
12 just an initiation. There would be definitely
13 environmental impact and public hearings.

14 I think something that should be
15 pointed out here, I think you are really talking
16 about this concept of locking power into Bruce
17 Some people are concerned that the lines are
18 going to be needed for the generation which has been
19 approved to date. Really, Bruce B is a long way down
20 the road even in the present planning stage and we
21 really don't know at this time and we won't know
22 in time for the public information hearings how
23 much transmission capacity is needed for Bruce B.

24 Bruce B has been approved in principle,
25 I believe, subject to hearings et cetera, so really
in some ways you can talk about the need for the



4.25
1 priority projects but you have to look at the
2 entire system and the Commission, after the
3 information hearings, will probably be in a better
4 position to answer your question.

5 MR. PAT DAUNT: The need for Bruce B,
6 according to Ontario Hydro is one 500 K.V. line.

7 DR. ROSEHART: We will find out
8 in June or July.

9 MR. BENSON: Would you itemize
10 exactly what the Commission's terms of reference
11 are with regards to further expansion at the
12 Bruce Nuclear Generating Station.

13 DR. ROSEHART: The only generating
14 station is the North Channel generating station but
15 in terms of generation or perhaps you have to look
16 at the provincial grid so it is really not a case
17 of generating station A,B,C and D or wherever it is.
18 It is how many megawatts are needed in the provincial
19 grid.

20 The Commission has been asked for
21 a long time to look at site selection for future
22 generation. This Commission will probably be reporting
23 in the two year period - I don't know when Bruce B
24 is going to be under construction -

25 MR. COSTELLO: It is after 1983.

DR. ROSEHART: It is up in the 1980s.



4.26

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. DAVID NEWELL: Six months ago we were promised a new set of hearings. They never materialized. The generating plant has been approved in principle and if they approve the line in principle too then we might have that line approved in principle as well.

DR. ROSEHART: The answer to your question is maybe you should consider your independent inquiries coming at different stages. This Commission is looking at, say, the need for the line and another body such as the Environmental Assessment Board may look at the social-economic and environmental implications.

MR. DAVID NEWELL: We may fall between two stools.

DR. ROSEHART: You'll have to wait until one recommendation is made, the need recommendation.

MR. DAVID NEWELL: But six months ago we were promised this and I can see that they will say sorry, it is too late now.

DR. ROSEHART: But the needs of a line is definitely within the terms of reference of this Commission so until the Commission is in a position to decide on the need.

MR. DAVID NEWELL: If the generating



station is approved, the need must be there.

DR. ROSEHART: It isn't under construction yet. Until the bricks and mortar are there, you don't have to worry.

THE CHAIRMAN: I think in fairness to those people who still have written submissions we should hear those and then I assure you, those of you who wish to continue define or state your concerns and so on that we are here, prepared to stay here as long as necessary.

- - - - -



5.1

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. VINES: I have a brief but I would just like to sum this up by saying we are not getting what we thought we were.

THE CHAIRMAN: I see. Well, I am sorry about that because as I say we are just here to hear your concerns and the issues, that is at this stage.

MR. VINES: I realize it is not your problem but we were under the impression via the news media and I don't know if I ever saw anything from Ontario Hydro, that we were getting our independent hearing and we are not, not really.

THE CHAIRMAN: I see. Well later perhaps hopefully you will be satisfied, hopefully.

MR. VINES: I am not trying to downgrade you people. You are 100% but we are not getting what we thought we were getting in depth.

THE CHAIRMAN: We will pass that on. This is recorded.

MR. VINES: I have a brief from Wallace Township Council, just a short brief.

THE CHAIRMAN: Yes.

MR. VINES: Wallace Township is mainly agricultural orientated, being blessed with high quality top producing soils. Our council is very



5.2

1 concerned about the quality of life of future
2 generations, if Ontario Hydro is allowed to place
3 large generating plants and transmission lines on
4 our best food lands, when the bulk of this power
5 is intended to be used in other areas.

6 Hydro is a great aid in food
7 production, but with only 2½% of Ontario prime food
8 lands we feel that generating plants and transmission
9 lines should be placed off our best food lands where
10 Hydro may also attract development in areas that
11 need it.

12 Our council is pleased to take part
13 in the Royal Commission on Electric Power Planning.
14 We would like the main hearings to be held throughout
15 Ontario in areas that the general public can easily
16 reach as this one is being held tonight. If possible
17 it would also be advisable to hold the agricultural
18 part of the hearings at a time of low field work,
19 not in seeding time.

20 90% of Wallace farmers signed a
21 petition opposing the misuse and destruction of
22 number one agricultural land. This demonstrates the
23 deep concern of the residents of our township.

24 THE CHAIRMAN: Thank you very much.
25 Perhaps, Mr. Vines, you should pass our thanks to



5.3 1 the Reeve, Mr. Bender, for this submission.

2 The question raised about the main
3 hearings and being held throughout the province,
4 this is certainly our intention. Very obviously
5 local concerns can only be discussed in the locale
6 where the concern is a reality and not discussed a
7 few hundred miles away. We are very conscious of
8 that.

9 Thank you very much, and thank you
10 for raising that question of clarification. I hoped
11 that maybe I helped a little bit. It is so complex
12 a matter. I think it is going to take a little
13 time to get educated, not the least ourselves. We
14 are groping perhaps even more than any of you are
15 but certainly we are becoming conscious of the
16 issues and concerns and that is a major problem at
17 this time.

18 Is Mr. Mason here? Mr. Mason is
19 representing the Farm Safety Association of August
20 Township.

21 SUBMISSION BY MR. MASON:

22 Doctor Porter, Members of the Royal
23 Commission on Electric Power Planning, Ladies and
24 Gentlemen, the members of August Township are quite
25 proud of our Township and feel it needs looking after.



5.4

1 The Farm Safety Association is very concerned about
2 the added risk to safety on a farm that the granting
3 of Hydro transmission lines and towers will bring
4 about. The use of large machinery close to towers,
5 especially at night, is very risky. A machine that
6 has run out of gas can ignite if it is under a
7 transmission line on a hot day. If a flame from a
8 burning brush or other fire should touch a
9 transmission line a flashover could hit and kill
10 any person close by. Planes flying near the line,
11 spraying crops, is a very unsafe operation.

12 The shock the farmer operator could
13 receive while standing on a high part of his
14 equipment while under the lines could cause him to
15 lose his balance and fall off.

16 Although the danger of a child
17 retrieving a ball from a transformer enclosure has
18 been highly publicized by Ontario Hydro, the
19 dangers to a farmer-operator have been kept hidden.
20 It is my opinion Ontario Hydro, in the interests of
21 farm safety should make public the danger associated
22 with transmission lines and educate people to this
23 hazard.

24 Another thing that comes to my mind,
25 where a hydro transmission line goes close to someone's



5.5

1 house, so they must live in that environment, what
2 is the danger there? We admit there is leakage, but
3 over the long term what is this danger is a question
4 that I think should be looked into.

5 I won't take any more time, thank you.

6 THE CHAIRMAN: Thank you very much.

7 DOCTOR ROSEHART: Just a question about
8 the flames, do you have any reference to that?

9 MR. MASON: I think that has been
10 thoroughly checked out, yes. I can get you some
11 information on it if you like. Apparently smoke
12 doesn't conduct but the actual flames themselves
13 will cause a flashback that could kill anyone in the
14 vicinity.

15 DOCTOR ROSEHART: Have there been
16 experiences like this in Ontario, do you know?

17 MR. MASON: I think there have been
18 tests done, yes.

19 THE CHAIRMAN: Thank you very much,
20 Mr. Mason. This obviously is an area of concern
21 for the Commission and we are grateful for your
22 submission.

23 Is Clarence McCourt, the Reeve of
24 Elma Township here?

25 SUBMISSION BY MR. McCOURT:



5.6 1 Royal Commission on Electric Power
2 Planning, Mr. Chairman, Ladies and Gentlemen:

3 On behalf of the Council and citizens
4 of the Township of Elma I wish to submit a brief
5 presentation regarding characteristics of our
6 municipality that we hope will be considered by your
7 Commission.

8 The Township of Elma is comprised of at
9 least 80% land with no agricultural limitations and
10 the balance is practically all used for agricultural
11 purposes. Although there is a slight limitation for
12 all crops on the balance, it is excellent grazing
13 land.

14 We do not wish to see this agricultural
15 land distrubed for other uses if at all possible
16 particularly when there is so much land in the
17 Province not as suitable for agriculture as ours.

18 At a preliminary meeting we heard that
19 Hydro was proposing a line from Wallace Township
20 south to London and not only would this disturb
21 agriculture but would be taken into consideration at
22 some future date when the Province is planning the
23 erection of urban centres.

24 We are very much opposed to either of
25 these possibilities and we will do all we can to



5.7

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

prevent it.

Agricultural land should have high
priority, in any area where planning ahead is
undertaken.

We trust your Committee will include this
important matter in your consideration.

Thank you.

THE CHAIRMAN: Thank you very much,
Mr. Reeve, and on the part of the Commission I can
assure you that this Commission certainly will treat
this matter as a question of high priority.

It is very clear, very concise, and
thank you very much.

- - - - -



6
DP/cr

1 Howie Winkle of the Junior Farmers.

2 MR. WINKLE: I think you had a copy
3 of this given to you at Wingham.

4 Dr. Porter and Commissioners, this
5 brief was written by Barry Gibson, President of the
6 North Huron Junior Farmers. He was unable to
7 so I am reading it for him.

8 Dr. Porter and Commissioners, in
9 response to the concerned farmers' request that the
10 youth of the rural community attend these meetings
11 and state our position, I, as a junior farmer
12 representative of August Township can only
13 reiterate what has been stated before, namely
14 that Hydro's land use policy pertaining to the power
15 corridors does nothing to show concern for the fact
16 that prime farmland is a non-renewable resource.

17 I would like to ask these questions
18 of all concerned people. Is the effect on crops
19 and grazing cattle in the near vicinity of lines
20 known? If so, what? If not, we desire to know.

21 What studies have been done towards
22 using abandoned railway lines or further use of
23 already established lines and corridors? What about
24 underground lines? What impact upon social, economical
25 and existing rural life as it is will further and
further Hydro take-over have on our future.



6-2

1 Thank you.

2 THE CHAIRMAN: Thank you very much,
3 Mr. Winkle. Most of the questions you raised I
4 think are certainly under consideration or will be;
5 underground cables and these sorts of problems.

6 Much of this will emerge in the
7 information meetings when we get the programs that
8 are being undertaken right now, what the state of the
9 art is in these areas and I think people as a whole
10 when they have this information that they will begin
11 then to be able to participate on the basis of some
12 very real knowledge. At least, we will, because we
13 don't have it at this time.

14 We are grateful to the junior farmers.
15 You of course will be the senior farmers when the
16 period of this Commission's consideration comes to
17 fruit, so to speak, that is, towards the end of the
18 century, so we are very grateful to you.

19 Thank you very much.

20 MISS BEVERLY BROWN: Unfortunately
21 Allan Walper could not be here because of the
22 weather. I am a pig farmer in North Huron County
23 and I am on the executive of the Huron County
24 Federation of Agriculture, of which Allan Walper is
25 the first vice-president. For that reason I was asked
to read his brief to the Commission.



SUBMISSION OF MR. ALLAN WALPER:

6-3

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Mr. Chairman, Commissioners, Ladies and Gentlemen, I am speaking on behalf of the Huron County Federation of Agriculture, with the submission that follows below. We have attended the meetings in London and Wingham where we had a submission which was not heard for lack of time. However our submission would only have been a duplication of what already had been said by other groups, so we decided to change the one for tonights meeting.

The original submission dealt mostly with pollution and land use. Tonight, we will endeavour to express our opinion on some of the issues and concerns outlined in your preliminary statement concerning the rate of electrical growth in Ontario, we believe that in view of our diminishing supply of oil it may at first glance seem appropriate to replace our oil furnaces with electric heat. However, in looking at the amount of electricity necessary to do this, we urge the Commission to have a good look at alternative energy sources, such as solar heat and methane gas production on the farm from manure.

Our opinion on your question of economics is that a ready availability of electric power will facilitate industrial, but not necessarily economic growth, depending upon the area in which



6-4 1 it is produced. It is important to the whole
2 Canadian economy, that it definitely not be located
3 in an agricultural area, because industry will then
4 be attracted to that area and research done has
5 proven that industry has an adverse effect on
6 agricultural crops as well as removing much good
7 land from food production to accommodate that industry.
8 If there is an economic gain through industry, it
9 will be more than offset by loss from farm produce.
10 We believe that there is no price sufficient to
11 warrant the removal of good land from agriculture, and
12 that many people will not realize this, until they
13 see empty shelves in the supermarket. Of the
14 total land surface in the world, only about 8% is
15 suitable for producing crops, and that leaves 92% on
16 which to build factories and houses.

17 Generating stations should be located
18 on non-productive areas, where industry will not
19 interfere with food production and then perhaps, we
20 could obtain an economic gain from both.

21 You asked about land-use and regional
22 implications. It seems reasonable to assume that
23 we will have continued population growth and we
24 believe that this province can sustain a larger
25 population, provided we are very careful in our
planning so we do not destroy any more of our



6-5 1 agricultural land. Our future heavily populated
2 areas, should be attracted to non-productive lands.
3 This would have no adverse effect on provincial land use
4 policies, but society has a growing concern about
5 how land is used.

6 As far as conservation of electricity
7 is concerned, we doubt if much will be accomplished
8 in this area until the cost becomes prohibitive.
9 Progress in energy recovery from solar heat is being
10 made in other countries, and if more research could
11 be done in Canada, it is quite possible that much
12 less expansion is needed in hydro generating stations.
13 These possibilities should be considered carefully before
14 Ontario Hydro gets the green light on their total
15 expansion program. Some of the energy needed,
16 could possibly be supplied from other sources.

17 I appreciate, Mr. Chairman, the opportunity
18 to present this submission to yourself and the commission
19 on behalf of the Huron County Federation of Agriculture

20 Respectfully, Allan Walper,
21 1st Vice-President
22 Huron County Federation of
23 Agriculture.

24 THE CHAIRMAN: Thank you very much,
25 Miss Brown, and the Huron County Federation of
Agriculture.

MISS BROWN: I should warn you I am
not really equipped to respond to any questions



6-6 1 except that if you have any I would like to relay them
2 back to Allan Walper.

3 THE CHAIRMAN: No, all that I personally
4 was going to say was that insofar as the solar wind,
5 the methane and one or two other things the
6 hydro-dynamics and various things like this as possible
7 alternatives, these are certainly within the terms
8 of reference of this commission.

9 Denmark Research programs have already begun.

10 We are assessing the merits of solar energy in
11 particular and wind. Many of you know that already
12 a few houses have been built in Ontario which largely
13 are heated anyhow directed by solar energy. Then

14 expects in 75 years to have a completely
15 independent energy system. By independent, I mean
16 independent of all outside resources since they have
17 no resources of fossil fuels or indeed any nuclear
18 resources that means solar and wind and this is their
19 program.

20 So what you are talking about is
21 certainly a viable proposition. It is a question
22 of the time scale in many ways and all I can remark
23 is we are very conscious of this and we will be
24 eliciting more information during the information
25 hearings as to what is going on in Canada.

MISS BROWN: I would like to point out,



6-7

1 you mentioned it is a time scale; I think it is also
2 a point of money being made available. There is a
3 certain amount of money being spent now but it is
4 just a pittance to what, if they poured money to
5 it, they could do with that research.

6 THE CHAIRMAN: This is a tremendously
7 important field known in the trade as the biomass,
8 getting energy from biomass. Very clearly, with
9 concerns about non-renewable resources, once burned
10 these are gone, that the concept of recycling in
11 every way imaginable and the biomass approach is
12 a recycling approach, these we are very conscious
13 of.

14 MISS BROWN: Might I say one more
15 thing?

16 THE CHAIRMAN: I wish you would.

17 MISS BROWN: I was born and raised in
18 Toronto and I lived there all my life and I hated it.
19 It took me over 35 years to find a way to earn a
20 living out in the country and when I find my spot in
21 Huron County I just thought it was God's green earth
22 and it would be a shame and a crime to bring urbaniza-
23 tion and industrialization into Huron County.
24 It is just like no other spot on this earth. That is
25 not very technically put but to my way of thinking
it would be a crime.



6-8

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

THE CHAIRMAN: Thank you, Miss Brown.

We have not heard from the Perth County
Agriculatural group, have we?

MR. HENRY DAVEY: Mr. Chairman,
ladies and gentlemen, I thought we were not even
going to get on. We were missed at Wingham and I
thought we were going to be missed again.

THE CHAIRMAN: Nobody is going to be
missed.

SUBMISSION BY MR. DAVEY:

MR. DAVEY: One thing about being last
on the program, everybody else has said everything
that can be said. However this is our brief.

At present there are 3.5 billion
people in the world to feed and by the year 2000
there will be 7 billion. Each day, there are
180,000 new mouths to feed.

On an annual basis, the world's
agriculture will need to provide an additional
230 million tons of cereal; 40 million tons of
sugar; 60 million tons of meat; 140 million tons of
milk togetherwith the feeding stuffs to sustain these
increases.

In Ontario in 1971, we had 10.9 million
acres of improved farm land. In the past 30 years
2.5 million acres was lost from agriculture, with

almost $\frac{1}{2}$ of this taking place in the last 5 years -



6-9

1 200,000 acres in 1 year. At this rate, half of the
2 present foodland in Southern Ontario would be
3 out of production by 2000 A.D. and the remainder
4 would be gone by 2025 A.D.

5 To maintain our Canadian standards
6 even with an increase of 70% over the next 25 years,
7 we would require an average of 1 acre per person
8 to feed our own population. This would mean a
9 requirement of 12 million acres for food production
10 to feed the Ontario population of 2000 A.D. There
11 were only 10.9 million acres of improved land
12 in 1971 and in the ensuing four years this has
13 probably been reduced to little more than 10 million
14 acres at the present time. It would now appear that
15 even with 70% increase in production on land
16 currently in production, it will be necessary to
17 bring another 2 million acres of land into production.

18 There is a substantial area of less
19 productive land which might be brought into production,
20 particularly in Northern Ontario. The estimated cost
21 of bringing this land into production for roads,
22 drainage, clearing is at \$1000.00 per acre. In
23 addition, the production of food in a Northern climate
24 is more costly and completely eliminates certain
25 types of crops, such as white beans, and this
additional cost recurs annually.



6-10

1 That is a point we want to bring out that in this
2 type of Northern land that this additional cost
3 is annually, per year.

4 Guiding housing, commercial or
5 industrial users of land to non-foodland areas or
6 at least to lower classes of foodland, constitutes a one
7 one-time cost and would enable Ontario to retain its
8 capacity for efficient production, which in turn
9 means retaining the lowest practical cost of food.

10 What we mean there is that it may cost
11 a lot at the time to move industry or such like to
12 poorer land but that is only a one time cost compared
13 with trying to grow agricultural products on poor
14 land, which is a yearly occurrence.

15 Hydro availability determines where
16 industry and housing located, therefore hydros
17 locating in the centre of large agricultural tracts
18 of Class 1 and 11 land must be prohibited.

19 There may be occasions arising where
20 use of some foodlands for purposes other than
21 agriculture, may be justified. However, we
22 recommend that other potential users be required to
23 prove their needs cannot be met by use of other land
24 and further that where at all feasible, they be
25 required to use the poorer classes of foodland. We
must first be satisfied that alternate, suitable lands



6-11 1 are not available for the proposed development.

2 Ontario Federation of Agriculture's
3 Land Use Policy uses the basic idea that as much
4 high class agricultural land as possible in
5 Ontario should be retained for agriculture.
6 Further, that sufficient forest cover should be
7 maintained for the building materials that
8 they supply and for the protection of wind and erosion
9 and the ability, this forest area has, as a water
10 maintaining source.

11 We wonder if the use of waste as a
12 source of energy was explored more, that our energy
13 problems and waste problems both, could be eased.
14 With the use of Methane gas from lagoons, perhaps
15 farms, towns and cities could become self-sufficient
16 in creating their own energy as well as supplying
17 fertilizer for food production. Many well operated
18 farms today are capable of generating their own
19 hydro for short periods of time.

20 Many side effects of industry moving
21 into agricultural areas are felt, one being the
22 increase in land price. Land price increases,
23 together with unstable government trade-off policies
24 has put the stability of agriculture in a very high
25 risk position for young people to take over
and expand family farms, which has and will be the



6-12

1 backbone of the Agricultural progress in Ontario.

2 Society must decide whether Ontario
3 will have agriculture or industry - Not Ontario Hydro!!

4 Man's view of land and nature has
5 become one of disrespect and greed.

6 The root cause of land misuse comes
7 from man and it is up to man to find the solution.

8 Submitted by the Perth County
9 Federation of Agriculture.

10 THE CHAIRMAN: Thank you very much,
11 Mr. Davey, and thank the Perth County Federation of
12 Agriculture.

13 It is a rather interesting point
14 you raise in the first paragraph. Some of you may
15 have heard the CBC news this morning when the
16 Minister of Agriculture stated in Calgary that there
17 was an excess of dairy products and they had better
18 do something about it. I don't know whether any of
19 you heard this rather short view, actually, and then
20 we see perhaps a much more realistic statement of
21 the problem insofar as an additional 140 million
22 tons of milk are needed.

23 George, do you have any comments?

24 MR. McKEAG: It is interesting in
25 many respects. You were saying: Guiding housing,
commercial or industrial users of land to non-foodland



6-13 1 areas. And goes on to say "...hydro locating in
2 the centre of large agricultural tracts of Class I
3 and II land must be prohibited."

4 Have you any views on this matter of
5 locking land into agriculture or what is your view
6 on this land being saved for agricultural purposes
7 by means of regulation. How are we going to do this?

8 MR. DAVEY: This is a big problem
9 no doubt but I think it is a problem that we have
10 got to solve. Everybody wants to have good land.
11 This is where industry wants to build. They don't want
12 to build on the rocky ground and the hard places to
13 work. Hydro has been fed into these areas. This is
14 where industry wants to establish. When industry
15 establishes, people automatically come. The Great
16 Lakes system has had a lot to do with it because of
17 conveniences but how far - as we say here society
18 must decide whether Ontario will have agriculture
19 or whether Ontario will be industry. It is as simple
20 as that. If we want industry, agriculture is not
21 going to be here.

22 MR. McCAGUE: How are we going to do
23 this? You mentioned Hydro being responsible and they
24 are a part of it, but take the Cities of Toronto
25 and the Counties of York and Peel, two of the best
Counties in the Province, and we have lost I think



6-14 1 61% of our Class I land in Peel County since 1941
2 and of course the land on the edge of that is selling
3 at high prices, the speculators are in, and so on.
4 This is indeed a challenging problem, is it not?

5 MR. DAVEY: It sure is.

6 MR. McCAGUE: And a problem that
7 hopefully when we get into the hearings we will get
8 some answers. Hydro is a vehicle in this direction,
9 there is no doubt about it, but at the same time
10 there are some other consumers of land, I think we
11 were told that Highway 401 took up about 5,000 acres
12 of land but there is industrial build-up, residential
13 build-up, et cetera, et cetera, all part of it; and
14 your presentation tells us where we are going unless
15 something is done.

16 MR. DAVEY: Agricultural land has become,
17 what do you say, a political football.

18 MR. McCAGUE: Well, I don't know. You
19 are dead right, society is the body to do it and
20 society is very much concerned. In many presentations
21 we have had from urban people they have expressed
22 concerns very similar to your own so I think society
23 is becoming alarmed.

24 MR. DAVEY: I think it is a matter that
25 we have to decide, do we want to save Ontario to
be able to produce food or do we not. Are we



6-151 willing to hope that the food will turn up from
2 some place else. It won't matter to very many
3 of us that are here, I don't suppose, it is in
4 the generations to come. How it is going to be done,
5 I guess everybody knows as well as I do how it
6 is going to have to be done; it is going to have
7 to be done through legislation, that all I can see
8 for it. Land, agricultural land, will have to
9 stay for agriculture. Industry is going to have to
10 move to cheaper land.

11 THE CHAIRMAN: Thank you very much,
12 Mr. Davey. We appreciate your submission.

13 -----
14
15
16
17
18
19
20
21
22
23
24
25



.1
mb
1 I understand the Optimist Club of
2 Listowel and the Food Lands Steering Committee might
3 like to put in a few words.

4 SUBMISSION BY MR. JOHN VERVEEK:

MR. JOHN VERVEEK: Doctor Porter,
5 we were requested to send a brief and due to the
6 fact that we were not involved in the presentation
7 at Wingham we were kind of dubious as to what
8 angle we should take. However, after listening to
9 everyone tonight, there are some points that we
10 would like to bring out.

11 Number one, our Optimist Club which
12 is a social civic service club in Wallace Township
13 is very much concerned with the social impact that,
14 number one, the hydro lines and the generating
15 station is creating upon facilities such as the
16 schools, recreation, fire protection and police
17 protection and number two, the Optimist Club is very
18 much concerned with the impact that these conditions
19 are creating on the rural heritage.

20 Number three, we are very much
21 concerned with the disruption of the religious life
22 such as the Mennonites have created for themselves
23 in our community and surrounding communities and
24 apparently Ontario Hydro has very little concern
25 and is quite prepared to disrupt a way of life which



7.2

1 to us has been no harm to our community and an
2 added credit to our heritage.

3 Number four, we are very much
4 concerned how high the cost will be in the next
5 generation, which will be our children, because of
6 the gigantic plans and dreams of Ontario Hydro.

7 Number five, we are very much concerned
8 that the devious methods that Ontario Hydro has used
9 in the past in obtaining certain rights-of-ways and
10 expropriation grants in Bruce County and our concern
11 in this respect is that a disruption like that and
12 the methods that were used would cause a lot of
13 conflict between neighbours in our community.

14 Of concern to us is that the local
15 citizens at their expense have to disprove Ontario
16 Hydro's plans but at the same time are using our
17 tax dollars. Of concern to us is the fact that as
18 much as we appreciate the opportunity to be heard,
19 your sincerity and honesty towards us at these
20 hearings is by the fact of your terms of reference
21 by the time 1983 rolls around in all liklihood our
22 countryside here could be cluttered with Hydro
23 towers.

24 At the expense of sacrificing the
25 future of our next generation, are we maybe, our



7.3

1 society as a whole, demanding the highest standard
2 of living in the world at possibly the highest price
3 that is going.

4 I thank you.

5 THE CHAIRMAN: Thank you very much.
6 You will let us have a copy of your brief, won't you?
7 It has just been pointed out to me that this is the
8 first service club we have heard from throughout the
9 whole of our meetings so congratulations, Optimist
10 Club of Listowel.

11 Jim Sterling did hand us a manuscript.
12 I don't know whether he was here. He seemed a little
13 bit diffident about coming forward with it. Is he
14 here? May I read it because I am sure that he would
15 appreciate that I would do so at this time. He is
16 another member of the Junior Farmers' Organization.

17 "The future of Junior Farmers'
18 Organizations looks excellent providing
19 that we have a good future in
20 agriculture since our Organization is
21 all rural-orientated with about 75%
22 of our Organization coming from a
23 direct agricultural background.

24 "If land is used up at the rate it is
25 now our whole organization will change



7.4

1 "because everyone will become
2 urbanized. The way inflationary
3 land prices have rocketed young farmers
4 face a very grim future in regards to
5 making a full time vocation of
6 agriculture. Once all of our good
7 land is taken up by smoke stacks,
8 parking lots, sprawling factories and
9 the issue at hand, the hydro power
10 lines, where do we go then? Up to
11 Sudbury where the International
12 Nickel Company has made soil so
13 polluted it won't even grow weeds; or
14 to Dryden where pulp and paper mills
15 make the air so polluted our animals
16 will need respiratory aids.

17 "Is it essential for industry to have
18 good land? Of course not. The first
19 thing they do is dump rough fill on
20 land to level it up. It doesn't take
21 prime agricultural land to grow
22 hydro towers. They grow regardless
23 of the soil under them.

24 "Some members of our government claim
25 that the free enterprise system isn't



7.5

"working. How can it when young farmers trying to follow in their parents' footsteps are bullied out of land and opportunities by big business stepping all over them."

That is Jim Sterling's submission.

SUBMISSION BY MR. MOORE:

Doctor Porter, members of the Commission, ladies and gentlemen, under more or less your Commission's suggestion there was a committee formed under my chairmanship called the Food Lands Steering Committee to bind together all segments of agriculture and agriculture organizations to research into the problems of agriculture and hydro transmission lines and no real land use policy.

The members of this Committee are the Federation of Agriculture, The Farmers' Union, the Christian Farmers, the Bruce-Huron Power Plant Committee, the Huron Park Planning Committee, and the concerned farmers of United Townships.

This is a very new Committee. They will act together as a group to research and have open to all agricultural organizations and then go to the Porter Hearings on their own after getting this information.



7.6

1 If there is funding available through
2 your Commission the Committee felt that they would
3 like to use Doctor Norman Pearson to do research
4 work as he seems to be the best man in Ontario for
5 it and he is available, which is two main points.

6 Thank you.

7 THE CHAIRMAN: Thank you very much,
8 Lloyd Moore. The cooperative group which Lloyd Moore
9 is referring to came about, as he suggested, largely
10 through the Commission's suggestion that public
11 interest groups with common interests might band
12 together, if this was possible, and thereby perhaps
13 strengthen their case in submitting applications for
14 funding from the Commission, and this is what transpired.

15 As a matter of fact, George, and you
16 can endorse this and so can Bob, the best organized
17 groups across this whole province are the farm
18 organizations. This is manifest perhaps in this
19 meeting tonight where groups are actually banding and
20 teaming together to discuss their concerns and
21 problems and perhaps formalizing researches that might
22 be undertaken in this connection. In a real sense
23 you are pioneering I think in this sense and I think
24 the Commission is very glad of this because it is
25 going to save the taxpayer quite a bit of funding in



7.7

1 the long run. Otherwise, what happens, the smaller
2 groups undertake the same problems that come up with
3 the same perhaps results, but if you get the
4 combined group then you get a more in-depth study.

5 I wonder if either Bob Costello or
6 Bob Rosehart would like to mention the situation vis-
7 a-vis Professor Norman Pearson. I believe he is
8 going to be involved as a consultant perhaps to the
9 Commission.

10 DOCTOR ROSEHART: I think, Lloyd,
11 before the Commission can decide on the funding
12 allocation which, as I said earlier, should be done
13 in two or three weeks, the research director of the
14 Commission has contacted Pearson directly and I think
15 Pearson will act as a consultant to the Commission but
16 be guided by the Food Lands Steering Committee for
17 the sort of initial part of the study.

18 As far as I know, Pearson has been
19 contacted and it is well under control.

20 MR. MOORE: Thank you very much. Our
21 Committee has two problems right now. We have had
22 about 35 meetings and I understand that there has been
23 a transcript available to Ontario Hydro of all these
24 meetings.

25 I understand that shortly your



7.8

1 Committee will meet with Ontario Hydro. We feel that
2 the Food Lands Steering Committee should have a
3 transcript of those meetings so we know what is
4 going on.

5 Another thing, we would like to know
6 how many acres Ontario Hydro owns and leases in
7 Ontario. We went through the proper channels but
8 at the last minute it was classified information so
9 we were not able to get it. If you could get that
10 for us, we would appreciate it.

11 Thank you.

12 THE CHAIRMAN: Thank you very much,
13 Lloyd Moore.

14 MR. McCAGUE: Lloyd, basically what
15 counties does the Food Lands Steering Committee
16 embrace? Is it the five counties?

17 MR. MOORE: No, the Food Lands Steering
18 Committee represents all Ontario. I'm afraid we are
19 going to have to take in the whole works because
20 we have representation from every county in Ontario
21 in that Committee. There is no way that we are going
22 to be able to split it down to five counties.

23 MR. McCAGUE: I thought you had
24 mentioned certain organizations?

25 MR. MOORE: Yes, but when you start



7.9

1 talking about the Federation of Agriculture, the
2 Farmers' Union, and the Christian Farmers, they are
3 all over Ontario and there is no way we can split
4 it up just to say one area, although one area we
5 would like to look at but we would have to look at
6 all Ontario if you are going to run it, you know,
7 taking in everybody in agriculture.

8 MR. McCAGUE: You are hoping that you
9 can bring together through the Food Lands Steering
10 Committee the Ontario Federation, the National
11 Farmers' Union, the Christian Farmers' Federation
12 all over the province?

13 MR. MOORE: Yes, and then there are
14 these groups working, they cover a wide area. I think
15 it is great to have all the organizations work
16 together like this, I really do. It is really
17 something because it is not just this one hydro line,
18 it is so many other things. It is nice to know that
19 we can all get together and know where the problems
20 are and how immediate it is, and agree on it. When
21 you have agriculture in one solid block, that really
22 means something.

23 MR. McCAGUE: Sort of getting back to
24 one farm organization, are you?

25 MR. MOORE: Right, the Food Lands



7.10

1 Steering Committee.

2 THE CHAIRMAN: Thank you very much.

3 Perhaps it would not be remiss if I
4 mentioned a related, although perhaps not too
5 related area because again the Commission has not
6 received approval of its budget, but this is in the
7 area of assistance to people, especially those
8 away from large urban communities.

9 In the preparation of submissions to
10 this Commission we hope that we will be able to
11 appoint counsel, that is a lawyer, who will be
12 independent of the Commission but will be appointed
13 to help any individuals or any groups of individuals
14 who may wish to make a submission; and this person
15 will be travelling around the province together
16 with somebody associated actually with CELA, the
17 Canadian Environmental Law Association, somebody with
18 a lot of experience in working with public interest
19 groups and so on.

20 So this is another way in which we
21 hope to facilitate as much input from not only groups
22 but also individuals and this we hope will be
23 approved, but I thought it might be a good opportunity
24 to mention it.

25 MR. MOORE: Will the Porter Commission



7.11

1 look after the transcripts, Mr. Chairman, of their
2 meetings with Ontario Hydro.

3 THE CHAIRMAN: In the information
4 hearings? This is largely a budgeting problem.
5 These transcripts are massive. What I hope to do,
6 and Bob Rosehart is signalling, is to get out
7 summaries at the end of perhaps each day which will
8 be available very widely, they will be available
9 in public libraries, for instance.

10 In addition there will be a transcript
11 at the information centre and there will be a few
12 copies of this so if the summaries are there then
13 access to the information in depth will also be
14 fairly straightforward because somebody would be
15 able to say I am interested this day in what so-and-so
16 said, could I have his submission or what was stated,
17 and I think we could handle that.

18 Have I said that right, Bob?

19 DOCTOR ROSEHART: We are also planning
20 to have four regional depositories for the complete
21 transcript and also all the submissions and one of
22 those I believe is going to be London so it would
23 not be too far away.

24 THE CHAIRMAN: Well, Ladies and
25 Gentlemen, the meeting is now open for sort of a general



7.12

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

discussion.

Anybody that would like to come in
at this time, I think it would be a good idea to
come up to the podium and perhaps just for the
benefit of the transcription you would mention your
name.

- - - -



8: 1
DP: 2
yk 3

MR. TONY McQUAIL: My name is Tony

McQuail and I have three points to make.

3 The first would be to go back to our
4 earlier discussion and I believe that Bob Rosehart,
5 you have missed the point in my submission in suggest-
6 ing that we don't really need to worry until we
7 hear the mortar being mixed at Plant B or hear the
8 dozers coming to clear up a right-of-way.

9 I think the point I am trying to get
10 across is that we are to have an effective input into
11 planning and if planning is to really be an input
12 process with public involved we do have to be involved
13 long before now with Plant B; and this is why our
14 concern is so strong at the moment, if we wait until
15 the Commission is finished Ontario Hydro is going to
16 be an incredible amount ahead of us. They have already
17 done their planning, they have got their proposals,
18 they have got their project, all we can do is react
19 to them and that is a very negative position to be in.

20 So I am concerned that we not wait
21 until they have started to build. If they have
22 approval in principle, there has already been a long
23 lead-off time which we have been excluded from. So
24 that is my first concern.

25 The other two points relate to my
being here tonight not just as a representative of myself



8-2

1 but as a representative of CANTDU which is a Goderich-
2 based anti-nuclear group. The first is, we are
3 starting a newsletter which we hope will be an
4 information organ on the potential consequences of
5 nuclear energy and this will cover a wide range of
6 areas. In our first newsletter we intend to have
7 a section on biological impact of power lines which
8 people might find interesting; but we find the more
9 we look into nuclear energy the more we realize that
10 this is something which is a very great threat to us
11 and perhaps over a much longer range of time than
12 anyone realizes so anybody who would be interested
13 in receiving a complimentary copy of that newsletter
14 please see me after this meeting and I will get your
15 name and address.

16 The third point, I was asked to
17 enquire about the funding requests at the Wingham
18 meeting. We have been working in conjunction with
19 five other groups across the Province who have similar
20 concerns to ours. We are asking you what is going on.

21 THE CHAIRMAN: Bob Rosehart is on the
22 Committee and so is Bob Costello. The first point,
23 perhaps Bob you would like to comment on that.

24 DR. ROSEHART: I think the first point
25 about the bricks and mortar, maybe I should comment
on. A Select Committee of the Legislature now also



McQuail

8-3

1 is looking at the system expansion plan. I believe
2 they are talking about 1985 which somewhat overlaps
3 the 1983 period and with the Select Committee and
4 with this Commission and with hearing boards, et cetera,
5 it is not a very simple thing; so maybe we will leave
6 it there; but there should be lots of time for public
7 participation just like we are doing tonight, and
8 I think that is the sort of participation we need
9 to get the points across.

10 The second thing, with respect to
11 public funding, I have made two comments tonight. I
12 think the Chairman of the Public Funding Committee
13 should make a comment. He is going to have to give
14 the money away.

15 MR. COSTELLO: To start off, my
16 friend George was Chairman. I seem to have now backed
17 into that post. I don't know whether I have been
18 promoted or demoted. In any event, I don't have any
19 money at this point in time. I have got a note here
20 that came in today. We are considering your request
21 but we have not got our budget yet.

22 MR. McQUAIL: When do you will let
23 us know?

24 MR. COSTELLO: Yes, fine.

25 THE CHAIRMAN: It should be within,



8-4

1 hopefully, three or four weeks.

2 DR. ROSEHART: Two to three weeks.

3 MR. ALLAN PAGE: Mr. Chairman, Members
4 of the Commission, Ladies and Gentlemen, after having
5 your terms of reference more carefully explained to
6 me, personally I am disappointed, as many are.
7 Certainly the comments I was going to present possibly
8 are a bit irrelevant. Maybe I should be speaking more
9 on the need and requirements for the end of the
10 southern route. We were told preliminary meetings
11 and follow-up meetings would be presented by Ontario
12 Hydro on these 500 kilo volt lines proposed for this
13 area were required for Hydro requirements for the
14 Kitchener-Waterloo - Cambridge area.

15 Now, we could not really see through
16 this at the time although we did not have the facts
17 to back them up. Since that time I think we have
18 pretty well acquired the proof that actually Kitchener-
19 Waterloo-Cambridge areas requirements can increase at
20 least four times their current requirement before
21 additional lines are necessary into the area. So
22 I was not intending to bring this up or I would have
23 had the required figures for you. They are available
24 and I think it is worth looking into because I do
25 think possibly if you are not able to decide a proper
route for these lines at least you could designate



8-5

1 the actual area of the requirements and possibly
2 this would have some bearing on whoever does make the
3 decision of the route to consider where the actual
4 requirement is needed.

5 With that in mind I will continue
6 on with what I was going to say. In case you feel
7 and are able to acquire the authority to decide where
8 the routes should occur, should be, because I feel
9 for consistency that this would be certainly a proper
10 thing for your Commission to do because you are going
11 to be looking into all this information anyway.
12 If you are going to be doing this research we are
13 talking about, economics, why have a separate Board
14 or Commission searching for the same facts just to
15 get a separate answer when really you are crossing
16 borders again. One Commission really has to, as
17 far as I am concerned, to be economical about it,
18 if you are going to have the facts, why not make the
19 decision? I really feel this is a waste if you are
20 talking about economy.

21 THE CHAIRMAN: Let me try and answer
22 this as I see it, Mr. Page. What you are referring
23 to of course is this recent Act. This is the
24 Environmental Impact Act which was passed I think it
25 was about last September in the Legislature.



8-6

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

This, as I see it, and the implementation of this Act has still not been prominent, still not been published. I know the three very eminent gentlemen, including one colleague and friend of mine, Professor Donald Chant who started the Pollution Probe is a member of this three-man Committee to consider how this Act should be implemented.

The point is, vis-a-vis this Commission that when that Act is set up and when the procedures and I am sure with Donald Chant on that group that these will not be, shall we say "Mickey Mouse" procedures that this will be an Act with very considerable depth and considerable power and considerable beef, in other words.

Now, it will be an on-going process. This group then will be called on to hear through public hearings the public's view not only on Hydro projects about siting of generating stations, transmission lines but also siting of chemical plants, siting of any industrial operation that might have an environmental impact and so on.

In other words, this Act covers the whole gamut of industrialization in the Province whereas this Commission is very concerned with planning concepts for electrical power.



8-7 1 I think, in other words, that
2 really is the answer. Once this group gets going
3 with their research people; they have built up
4 expertise; as time goes on they will be building up
5 expertise and public participation; but I think that
6 is the key thing, it is not merely concerned with
7 electrical power; it is mechanical industry, it is
8 the whole business of gas lines, it is just every
9 single human activity proposed which might have an
10 impact on environment in any way and the environment
11 is defined in that Act in the most fantastically
12 comprehensive sense. It even includes almost noise
13 pollution to give you an indication of that.

14 I don't know whether I have answered
15 the question but the Act has been passed so it is
16 beyond our power of a Royal Commission. We are told
17 this is what you must do in our terms of reference
18 so of course we must try to do our best to cope with
19 it.

20 MR. McQUAIL: I appreciate that fact
21 and also this sounds like an excellent body that has
22 been formed but here again we were promised and hoped
23 for an independent hearing. I realize you require
24 some consistency and a body of that sort certainly
25 would give it but still there is not an independent



8-8 1 body such as yourself that we were looking for and
2 I feel that you would certainly be in a position to
3 even make recommendations as to line routing and
4 by the time you have done your work.

5 THE CHAIRMAN: The Commission will
6 certainly, and this comes within the terms of reference,
7 draw on the guidelines insofar as environmental impact
8 is concerned and recommend them; and the implementation
9 provided those recommendations are accepted and they
10 obviously relate to the production of food land -
11 I am not anticipating any recommendations but they
12 would certainly relate in those areas, this recommenda-
13 tion would then, if acceptable to the Government, go
14 forward to this Board, this Environmental Board,
15 and be the guideline and, hopefully, produce the
16 criteria whereby this siting would be held back,
17 plus, again, the protection of more public participation.
18 They are in fact following what the public has told
19 us they want and we have passed on to government; so
20 there are two layers of protection built in there.

21 MR. COSTELLO: The crux of the problem
22 is, it is just too big a job for us to do what you
23 are suggesting. For the north channel generation station
24 there are at least six locations mapped out. The
25 environmental work involved in each one of those locations



8-9 1 plus other restrictions they have are just monumental.
2 The question is smaller of course for transmission
3 lines but still I don't know how many possible
4 routings there might be, obviously more than one.

5 MR. McQUAIL: Just prior to present-
6 ing what I intended to present, I found it very
7 interesting when you suggested that Highway 401
8 used 5,000 acres of land. I thought it was a very
9 large user of land since it goes from one side of
10 the Province to the other.

11 Bearing that in mind, I recently read
12 an article that stated Hydro power transmission lines
13 had a devastating effect on an individual farmer but
14 had little significant effect on agricultural food
15 production on a regional or provincial scale.

16 According to a recent soil mark
17 produced by the Department of Agriculture at Wallace
18 Township has 99.3% Class I and II agricultural land.
19 I am sorry I don't have current data for adjoining
20 townships but I am sure they also have a higher per-
21 centage of Class I and II farmland.

22 The transmission line crossing a
23 100-acre farm in this area uses 15.6 acres or 13.6%
24 of the workable land in most instances. In cases
25 where a more diagonal crossing is necessary, up to



8-10

1 40 acres of the 100 acres would be lost. 67 farms
2 in Wallace Township alone would be affected. 67
3 individuals in a local area will most surely affect
4 the community as a whole.

5 I take exception to the fact of Hydro
6 corridors having no significant effect on regional
7 or provincial agriculture. The proposed southern
8 line from Douglas Point to Kitchener requires 5,000
9 to 6,000 acres of land; 1,000 acres of woodland with
10 a high percentage of the remaining 4,000 to 5,000
11 acres under cultivation for agriculture.

12 In this area the woodland comes into
13 importance with our large maple sugar industry and
14 the need for flow water run-off.

15 The Ontario Hydro ecological practices
16 for transmission line construction and maintenance,
17 Volume I, page 155 to 160 states:

18 "The minimum clearances between trees
19 and the nearest conductor at its maxi-
20 mum sag and swing shall be
21 15 feet for 500 KV line. At the time
22 of cutting, allowance must be made
23 to provide for the estimated growth
24 that will occur before the first
25 tree maintenance operation.

This is to ensure the above minimum



8-11

1

"clearance is maintained at all

2

times. Also all trees off the right-

3

of-way that cannot be pruned and

4

that in falling would come within

5

15 feet of a conductor shall be removed.

6

The lines could be maintained at

7

a minimum of 40 feet along this line

8

meaning that the maximum tree growth

9

allowed would be 25 feet or less."

10

This would indicate quite clearly the

11

permanent loss of over 1,000 acres of badly needed

12

foodland just on this one corridor. What about the

13

remaining 4,000 to 5,000 acres? We are told the

14

acreage permanently removed from agriculture by

15

tower bases will be small. But what about the loss

16

of land due to, one, construction; Ontario Hydro states

17

a minimum of one and one-half years would be required

18

to construct each of the three lines, 5 to 12 years

19

loss. Two, loss of production along the access road

20

from construction and repairs. How can these access

21

roads be farmed again economically?

22

Number 3, reduction in crop growth

23

for several years due to soil compaction by heavy

24

equipment.

25

Number 4, decreased crop yields due



8-12

1 to mixing of the soil by rutting.

2 Number 5, reduced crop reduction
3 due to undetected damage to tile drains.

4 I have just used this one proposed
5 corridor as an example. To this we add a proposed
6 generating station in the Goderich area with the
7 resultant corridor and future expansion at Douglas
8 Point.

9 I cannot see how total loss of
10 several crop years and partial losses due to unavoidable
11 consequences of construction over many years will only
12 be felt on a local level. These changes will be
13 regional, provincial, and could be of world concern.
14 Just compare that acreage for one line, with 401
15 area taken off. The other lines that will be neces-
16 sary for Bruce, if they have to expand, immediately,
17 another Huron plant.

18 Thank you.

19 THE CHAIRMAN: Mr. McQuail you will
20 let us have a copy of this submission, will you?

21 MR. McQUAIL: I have one copy with
22 me but it isn't all that good.

23 THE CHAIRMAN: You can mail it.
24 Thanks very much.

25



SUBMISSION BY MR. HANS PALPMAN:

DPeg
Cass. 9
/1

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. HANS PALPMAN: Mr. Chairman, my name is Hans Palpmann. I am from Wingham.

In this meeting we have discussed mostly the impact on rural Ontario especially with regard to farmland.

Now, in all fairness I thought we should for a moment consider the impact and the population of Ontario as a whole. What I wonder all this time is who are the people that are going to benefit from all of this development? Who are the beneficiaries? Will the people in our urban centres really be so much better off if their cities are being doubled in size, if instead of having to haul the garbage 100 miles, they have to go 200 miles.

Is anybody in Ontario going to be served by having a monster like New York City or Los Angeles created right here? And who wants to live there, with all the social and interrelated problems that there are.

Most people in Ontario are maybe only one or two generations removed from the farm. Most people in Ontario would like to retain their rural background and rural surroundings. I think if we think in terms of the quality of life do we really



9.2

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

benefit anybody by unlimited industrial and urban expansion with all its inherent problems especially in terms of social problems.

I just thought maybe we should try to consider that.

THE CHAIRMAN: Mr. Palpman, as I see it you have put your finger on one of the very essential issues that this Commission is being concerned with. I'm not saying that land protection and agricultural land protection is not a central issue. Obviously it is.

But the issue of the projected life styles and the quality of life in this province is spelled out maybe not explicitly but certainly implicitly in the terms of reference and this we are hoping to get the views of as many people as we possibly can. Your analogy of New York City and Los Angeles and so on is of course well taken. This is a problem that maybe Ontario can show a way for the world to look at in admiration. We have been looking at the approaches to some of these problems adopted in Sweden and this too, is very interesting, not the least that the public are being involved in the decision-making processes. This is the aim of this Commission, very much so. The issue you have raised, as I say, is just of profound significance.



9.3

1 We were talking about dispersion of population in
2 the future; we are talking about the life styles; we
3 are talking about, of course, the growth or otherwise
4 and the demand for energy of all kinds and that is
5 a very central aspect of the problem; and thank you
6 very much for raising it.

7 Thank you.

8 SUBMISSION BY MR. LORNE MURRAY:

9 MR. LORNE MURRAY: Mr. Porter, and
10 Commissioners, Lorne Murray is my name and I am Reeve
11 of the Township of Maryborough. I presented a brief
12 at Wingham. It was a very busy evening and we did
13 not discuss my brief too much. There was quite a
14 bit in it only it was very short.

15 However, I listened that evening
16 and again tonight and it is 12 o'clock, so I will
17 make it very brief.

18 I think that we want an independent
19 hearing. This is what our group fought for two years
20 ago in this room and, boy, it was a stormy meeting
21 and it went on much later than this with an awful lot
22 more people.

23 However, I just wonder maybe this is
24 probably the province has phased it out. From what
25 I could hear of the Royal Commission on the two
evenings we should not have to have any problem with
having an independent hearing at all because on the



9.4

1 two evenings I have never heard one person say there
2 should be hydro corridors down through here. So
3 that is an indication that it should stay there. We
4 have given all kinds of information to say why it
5 should not be here and I have had no one questioning
6 of it. Surely if it was going to be a corridor
7 down through here there would be some people here
8 to speak on their behalf.

9 Now, I have sat on as many
10 Commissions and Committees as I imagine anyone in this
11 room, in my 23 years in municipal life. I have just
12 finished - well, not finished, I have a meeting on
13 Monday again, with an ad hoc Committee on the
14 Grand River Conservation Authority of which I am a
15 member of and have been for many years and also with
16 the Maitland Conservation Authority. I have a fair
17 insight into the land from Lake Huron to Lake Erie
18 and this is an impact study West Montrose impact, what
19 there would be if there was a dam built at West
20 Montrose on the Grand River.

21 I agree with you that we did hire a
22 consultant, on that ad hoc Committee we hired a
23 consultant firm. However, I was a wee bit
24 disappointed on him on the overall. In fact, most
25 people thought so on that Committee that hired this
firm. Right off the bat I threw a question at this



9.5 1 consulting firm when we were interviewing them that
2 they could not answer, they had not even thought of;
3 and as you people know, that dam is to be placed in
4 Woolich Township and flood back into Pilkington
5 Township and back fairly close to the lower gorge.

6 There are a great many Mennonite
7 people in that area and I think that some of these
8 professional people get carried away mainly on
9 environment. Now, sure, I am a conservationist too,
10 and I certainly like to see about that that their
11 impact is very, very important for them too.

12 The impact that we brought up that
13 morning was that there are a great deal of Mennonite
14 people in that area, some of them below the river
15 and some of them above the river. It is not very
16 much of an impact to drive seven miles around that
17 lake that would be if there was a dam but it's a dam
18 big impact if you have to drive with a horse and
19 buggy to the church, and the church is above there,
20 and I went through this in my own township, I know
21 all about it.

22 There are three or four things I
23 would like to talk about. However, maybe I had better
24 not get carried away.

25 We talked about hydro towers and the
size of the machinery. Now, I know Mr. McCague was



9.6

1 a very aggressive farmer up in Minto Township
2 and I'm down in Maryborough. However, I'm not that
3 old, however, I've been farming for 20-some years.
4 When I started farming I had an 8-foot disc. Now we
5 have a 25-foot disc and we are not near the largest
6 and we do have problems hiring help and you either put
7 a young chap on it or quite an elderly man as a rule
8 and that machine has to keep going.

9 Who knows, if we get these corridors
10 through, there will be 50 foot or 60 foot discs and I
11 don't think Mr. McCague would want to be going around
12 with a 250 horsepower tractor and try to stay within
13 6 inches of it.

14 I'm just wondering if this Royal
15 Commission will end up like our Mid-Western Development
16 Council did. We worked five years and worked very
17 diligently on Phase I and Phase II analysis. It took
18 three years to get the first one out. We got the next
19 one about finished and we were promised money, and I
20 hear you talking about money tonight, and we were
21 promised from D'Arcy McKeough \$75,000 on that Phase I
22 analysis. We never ever received it. We were promised
23 it but we never received it. When we came out with
24 the second, Stage 2 analysis, it was so great that they
25 decided they had better disband it because we were



9:7 1 putting too much pressure on the government. That is
2 exactly what happened. We worked very hard for five
3 years with a group of people that knew what was going
4 on in the county.

5 Now, I think that is all I am going
6 to say on that at the moment but I think we should
7 not have a bit of problem because I have not heard
8 one person complain that there should be hydro poles
9 down through here. Now, there is only 2½% of land in
10 Ontario Class 1 and Class 2 land - all kinds of places
11 to build hydro corridors and hydro plants.

12 Thank you.

13 THE CHAIRMAN: Thank you very much,
14 Reeve Murray.

15 SUBMISSION BY MR. ELROY MARGEMAN:

15 ELROY MARGEMAN: My name is Elroy
16 Margeman and I'm a dairy farmer from Wallis Township.
17 I suppose my greatest concern, everyone will say we
18 are worried about future generation. At the same time,
19 being a junior farmer and you say 20 years from now
20 I will be a senior farmer, but I won't be that senior
21 that I will have to retire. So at that time it is
22 going to be a of great importance to me whether I have
23 13 acres taken away from me or whether I have 50 acres
24 taken away. If I have those acres taken away, whether
25 I am 30 or whether I am 50, it will be a vital part of
my income. If my income decreases so do my taxes



0.8 1 accordingly, I would imagine. I don't imagine that
2 the municipality would agree. So therefore I don't
3 see that hydro corridors are any advantage to us
4 here in Wallis or on any Class II soil. There are
5 other places to bring these lines down from and if
6 they can't be brought down through on these areas
7 I suggest that the government look to other
8 alternatives of getting it here.

9 The question was raised about locking
10 land for agriculture. I think it is a wonderful idea.
11 So much land is being used, as I say, 26 acres now
12 or whatever it is, the way I look at it we may not
13 have any agricultural land at all so why bother
14 having legislation. I say now is the time to act on
15 Ontario Hydro's proposal, not wait until 1983 or
16 1993. I think now is the time to put a stop to the
17 proposals until we see whether there are possibilities
18 of producing productive land other than on earth;
19 whether there is a possibility on Mars or Jupiter
20 or any other place of producing land. Then will be
21 time to say okay, we can go ahead and make our
22 resources work because we have the opportunity of
23 producing more food somewhere else other than here
24 but until that time I think it would be wonderful for
25 our agricultural land to be frozen to agriculture and
that land can be used to produce food for the rest of



9.9

1 the world.

2 In closing I would like to say that
3 I think it is wonderful that the Commission can take
4 this to the government and I certainly hope the
5 government listens to us because afterall we are the
6 people who elect the government and if they don't
7 listen to us therefore I don't think they should be
8 there.

9 Thank you.

10 THE CHAIRMAN: Thank you very much
11 Mr. Margeman.

12 When I was referring previously to
13 one of the junior farmers in the sense of becoming a
14 senior farmer, I did not mean that in the sense of
15 becoming a senior citizen but only in the sense of
16 becoming a much bigger operator, in that sense, and
17 I'm sure you appreciate that.

18 We are very grateful because as you
19 rightly say, it is your generation that is going to
20 be carrying the responsibilities of government and
21 every other area of activity, agriculture and so on,
22 in many years time, like 10, 15 and so on.

23 Thank you.

24 MRS. DENISE NEWELL: I just have a
25 question. Your terms of reference, are you going to
rule on more or less the total amount of electricity



9.10

1 we are going to need in Ontario in a period of time
2 or the amount of electricity we are going to need in
3 certain sections at a given point in time?

4 THE CHAIRMAN: That is a good question,
5 Denise. We of course as a Commission are not going
6 to rule on anything. All we can do is get the views
7 of as many people as possible; get the information
8 for Ontario Hydro; maybe from industry; and certainly
9 from governments and so on.

10 One of the areas that will be
11 considered in detail by the Commission, and we have
12 research on right now in this area, is what will the
13 demand for electricity be, how it will grow or not
14 grow. Will it eventually merge, as it will at some
15 time, there is going to be zero growth at some time,
16 when exactly, but it is obvious that in a world of
17 limited resources in all respects that growth just
18 has a limit. So we will be studying the demand
19 situation on a regional basis.

20 MRS. NEWELL: On a regional basis,
21 not on a province-wide basis so that you will be able
22 to specify more or less --

23 THE CHAIRMAN: On a regional basis
24 insofar as the priority projects are concerned. On
25 a province-wide basis insofar as the main - well, the
part of the inquiry that deals with 1983-1993 and



.11 1 beyond, so there will be certain regions where there
2 will be special studies of needs over a given time
3 scale for electric power for those regions. In the
4 general, will be the province-wide need for electric
5 power, so it is both.

6 MRS. NEWELL: My concern is that it
7 is very difficult to find a site which is ideal for
8 building a generating station and the growing
9 tendency once you have this site to use it to its
10 maximum and put as much as you can possibly get there,
11 which seems to me to indicate, whether we want it or
12 not, we are going to get everything that has ever
13 been hoped for or dreaded up there at Bruce.

14 Now, it seems to me that even if
15 they are producing far more there than the Kitchener
16 and Guelph area can use, it could always be reshuffled
17 to some other place where conditions are such that
18 they can't build generating stations.

19 Would you agree with this?

20 THE CHAIRMAN: That is correct what
21 you are saying. When you have a system like Ontario
22 Hydro you generate electricity so in the St. Lawrence
23 station, wherever the rapids are, you know there is
24 a hydro station there. This electricity is being
25 generated at that location right now. In other
words, you can't really say where the electricity



9.12

1 you are using is coming from. It is a total system
2 and this could happen right now. What is happening,
3 the electrical energy is being utilized and it may
4 be coming from New York State at this very instant
5 or from Michigan or from Quebec or from Manitoba so
6 these systems are all sort of combined together into
7 a total system. Am I saying that right - oh, the
8 expert is gone.

9 MRS. NEWELL: You would say then
10 because we have a heavy water plant up there and
11 because it is an ideal site for generation stations
12 it would be most unrealistic of us to expect then
13 to stop construction once they have finished B Station?

14 THE CHAIRMAN: That of course is
15 a question at this stage that we --

16 MRS. NEWELL: You don't want to
17 discourage us?

18 THE CHAIRMAN: All views are
19 important put to us and I think the point you have
20 raised is logical and is a point of concern.

21 MRS. NEWELL: But they have already
22 made a tremendous financial investment in this area
23 that is ideal for generating stations; they have a
24 heavy water plant and there are fewer and fewer sites
25 every year. They have got to develop this site to a
maximum. They are not under any obligation to accept



9.13

1 your recommendations, is this correct?

2 THE CHAIRMAN: Well, of course, when
3 you say "they" --

4 MRS. NEWELL: The government.

5 THE CHAIRMAN: That is what the
6 democratic process I suppose means that certainly
7 they are not.

8 MRS. NEWELL: So if it is expedient
9 for them to develop the Bruce to the maximum,
10 regardless of how we feel, it will be done. Is this
11 correct?

12 THE CHAIRMAN: I don't know how to
13 answer that question.

14 MR. COSTELLO: There are a number of
15 other projected stations along the north shore of
16 Lake Ontario. You just can't assume that because
17 Bruce A and B are there that C and D are going to
18 come. There are a number of alternatives. In
19 Hydro's paper they have outlined a number of
20 alternatives.

21 MRS. NEWELL: If we are looking at
22 the possibility of nuclear stations, we can't have
23 them too close to what we expect will be a large
24 population, can we?

25 MR. COSTELLO: There are a number
shown as possibilities on the north shore.



9.14

1 MRS. NEWELL: In spite of the growing
2 population?

3 MR. McCAGUE: There is a substantial
4 population at Pickering so apparently population
5 doesn't necessarily suggest that there will not be
6 a nuclear station.

7 I think you are asking a very
8 interesting question. I think it is a very leading
9 question and until we get into the hard rock of
10 hearing the views in a formal way from all sides
11 and all interests et cetera, we just simply could
12 not approach an answer to that question.

13 THE CHAIRMAN: There is a point on
14 the population question you raised vis-a-vis nuclear
15 generating stations. There are very strict
16 standards set up by the Canadian Atomic Energy
17 Control Board which is a regulatory Board in Canada
18 and which subscribes to the international regulations
19 because this is a global problem, very obviously.

20 This population density in the
21 vicinity up to, I think, even 10 miles are very
22 carefully set out and established and monitored so
23 that these restrictions vis-a-vis population size
24 are certainly built in and one can't see any chance
25 at all of these being changed to make them more or
less rigid, shall we say. They are very rigid and



9.15 1 very clearly they will stay rigid from the point of
2 view of protection of the population as a whole.

3 MRS. NEWELL: I see we're sort of
4 lost on the Bruce issue and we will just have to hope
5 and pray because it looks to me from where I am
6 sitting that we are doomed as far as the generating
7 stations up there at Bruce go. I know you are not in
8 a position to commit yourself.

9 THE CHAIRMAN: It's just simply
10 that after six months very few of us knew what a
11 nuclear station was five or six months ago. You see,
12 we are a group of non-experts just listening to the
13 people and trying to interpret what they are saying
14 so we can translate this.

15 So questions of this kind involve
16 tremendous complexities and I would hate to even try
17 to give an answer because it just would be meaningless
18 because we have not the facts; we have not the
19 information available at this time.

20 As the Commission merges more and
21 more people will be conscious and aware of these
22 facts and therefore everybody will be in a much better
23 position to debate the issues, and this will be one
24 of them, the future of the Bruce area. When we get
25 that information then we will have something really to
discuss.



9.16

1 MR. MCCAGUE: Here again, Arthur,
2 Denise has raised a point and this point is a major
3 issue so we have been saying in these preliminary
4 meetings, what are the issues, what are your concerns,
5 tell us; and we have been told.

6 MRS. NEWELL: Could I make one more
7 point? Do your terms of reference allow you to
8 order an inquiry into the internal machinery of
9 Ontario Hydro. It is not my idea that it is
10 cumbersome. I have asked a lot of people for what
11 reason they consider the southern route being pushed
12 so hard by Hydro and everyone who I spoke to who had
13 some knowledge of corporations and corporation
14 structures said it is a monopoly corporation, it has
15 existed for decades, and these things happen,
16 problems of communication and so forth and things
17 that cumbersome and unwieldy.

18 Do you have the power to order
19 investigation into it to see if it is functioning as
20 well as it should?

21 THE CHAIRMAN: Of course Task Force
22 Hydro four or five years ago was charged with that
23 very task and they made many recommendations concerning
24 organization, concerning responsibility, accountability,
25 role and place of Ontario Hydro in the province;
relation to the government, relation to people.



9.17 1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

These recommendations, many of them,
the vast majority, were accepted I believe by the
government and are being put into effect.

- - -



DPph

1 The whole structure of Ontario Hydro right now is
2 different than it was five years ago, but it takes
3 time when a new structure comes in, the idea of a
4 Board of Directors of people from a broad cross-section
5 of the public is in fact now in force including the
6 ex-president of the Sierra Club which is a very
7 environmentally responsible group. He is a member of
8 this Board on Ontario Hydro. But this is a very
9 recent development, as I say, within the last two or
10 three years. It takes a new organization, a new
11 structure, time, especially when it is a very big and
12 very complex one, to shake down, so to speak, but I
13 can assure you that this was studied in depth by an
14 independent group and the recommendations were
15 accepted and most of these have been put into effect.

16 MRS. NEWELL: Is there any ongoing
17 check-up with such a corporation?

18 THE CHAIRMAN: Yes, the ongoing check-up
19 will be with the Board of Directors under the Chairman
20 who came in from outside Ontario Hydro, Robert Taylor
21 was a senior vice president of Stelco. Another member
22 of the Hydro Board is Robert Uffen who is Dean of
23 Engineering at Queen's University, he is an academic;
24 and members of the Board are drawn from a cross-section,
25 as I said, an ex-president of the Sierra Club and I
don't know other members of the Board but I am sure



10:2

1 that this would represent a cross-section. I believe
2 there is a trade union member. Am I right?

3 FROM THE FLOOR: Is a farmer on there,
4 Dr. Porter?

5 MR. COSTELLO: I don't think there is.

6 MRS. NEWELL: Thank you very much.

7 MR. ELDON VINES: One more thing, we
8 were up to Hanover in August and met with Bill Davis
9 and presented our brief. We are concerned farmers.
10 He said I have some news for you, what would you think
11 of a highway coming right through the area that you
12 are opposed to Hydro lines. Apparently there is a
13 highway coming through from Guelph to Douglas Point
14 and area and this certainly means development. They
15 are looking for development or they would not be
16 coming with a four-lane highway and I think - we are
17 concerned about corridors. Also the highway is going
18 to be just as big a problem and it is connected with
19 Ontario Hydro doing our planning there is where land
20 use follows. The Government has got to say, they are
21 telling us in a roundabout way all the time, we never
22 know what direction they are coming at.

23 THE CHAIRMAN: I do not. I don't know
24 whether the other members do. When the information
25 here took place, Government departments, the Treasury
department, the Ministry of Energy, the Ministry of



10:3 1 the Environment and so on, this information will come
2 forward and then the whole future hopefully will be
3 available to the people in the province as I say and
4 then the debate on the future planning concepts
5 insofaras electric power can be looked atⁱⁿ an entirely
6 different way to what we can look at it right now
7 because the information is not here. Certainly if
8 the highway as such is projected, as you say, this
9 would certainly come out in those information hearings.
10 In fact, we would probably ask if there is to be.
11 It is noted in the transcript just what you said, so
12 this could be asked.

13 MR. VINES: It was Bill Davis that
14 said it. I think it just indicates to us that it
15 doesn't mean an expansion of population up there. The
16 question was asked, does it mean expansion of population
17 if they are going to do this. Ontario Hydro is doing
18 the planning is the way I see it, Ontario Hydro is
19 doing the planning for the Government because they
20 put the plant there first and now the Government is
21 getting the transportation into it.

22 Thank you.

23 THE CHAIRMAN: Thank you very much
24 Mr. Vines.

25 This is a sort of a moment of truth
as far as this Commission is concerned because these



10:4

1 are the dying minutes I suppose of our preliminary
2 meetings but hopefully not of the Commission as a
3 whole.

4 As I say, we will have a report out
5 relating to the issues and concerns that were there.
6 We will welcome any feedback on this information
7 saying you have not quite identified this as we
8 thought you should, and this by the middle of March.

9 Then, as I say, we move into the
10 information meetings and after which we will be in a
11 much better position to conduct the main enquiry.

12 In closing I want to say thank you
13 very much. You have demonstrated that you certainly
14 have concerns and we have noted most of them, not all
15 of them, and I hope that none of you have trouble
16 getting back to your homes with the amount of snow I
17 saw and what is going on outside. However, we will
18 hope for the best and thank you and you will be seeing
19 us again of course. Thank you.

20 --- NOTE: BRIEF SUBMITTED TO COMMISSION BY MRS.
21 MANION BUT NOT PRESENTED VERBALLY:

22 Brief to the Royal Commission on Electric
23 Power Planning. To: Dr. Arthur Porter and Commissioners.

24 I came here tonight to voice my fear
25 and apprehension regarding these new transmission lines
which will be built across many of our farms. As a



10:5 1 mother of 3 small children I view with grave concern
2 my being forced to live and work under these lines.
3 Since economic conditions have forced many farm wives
4 to work long hours in the fields with their husbands,
5 our children have to be left somewhat unsupervised.
6 I wonder how little children playing in a field could
7 be affected by a shock from a fence or machine. This
8 invisible force is perhaps only a nuisance to an
9 adult but is absolutely terrifying to a child because
10 he can neither see nor understand it. I know from my
11 own experience that working under the present 230 kV
12 line can cause severe headaches. How much greater
13 might the discomforts of these bigger lines be on
14 children? What are the possible effects of all this
15 electricity on the pregnant mother and her unborn
16 fetus living and working under or close to these lines,
17 for months on end? Does anyone know if there could
18 be bad effects on a developing fetus from these lines?
19 We mothers can recall all too easily those thalidomide
20 cases a few years back. I appreciate your Commission
21 listening to my concerns and I hope some consideration
22 will be given to them.

23 I would like to close with a prayer for
24 our children born and unborn that they may continue
25 to enjoy the benefits of this great land which has been



10:6

1

given to us in trust by Almighty God.

2

3

4

---MEETING ADJOURNED.

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

